Australian Government
Defence

# NAVAL SHIPBUILDING AND SUSTAINMENT PLAN: EVOLVING THE ENTERPRISE

2024

*Defence acknowledges the Traditional Custodians of Country throughout Australia. Defence recognises their continuing connection to traditional lands and waters and would like to pay respect to their Elders both past and present.*

*Defence would also like to pay respect to the Aboriginal and Torres Strait Islander people who have contributed to the defence of Australia in times of peace and war.*



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# Ministerial Foreword

The Albanese Government considers continuous naval shipbuilding and sustainment to be a sovereign industrial capability and a critical element of protecting Australia's national security and sovereignty.

The Albanese Government affirmed its commitment to continuous naval shipbuilding and sustainment in response to the 2023 Defence Strategic Review and reiterated its criticality to national security and sovereignty in the 2024 National Defence Strategy.

To deliver this, the Albanese Government has committed to the most significant investment in maritime capability in Australia's history – an investment of up to $159 billion in maritime capability over the decade in the 2024 Integrated Investment Program.

The Albanese Government's plan will see the Royal Australian Navy's surface combatant fleet more than double compared to previous plans. In addition to the current build of six Hunter class frigates in Adelaide, we will build new general purpose frigates, large optionally crewed surface vessels and future destroyers as part of a continuous pipeline of shipbuilding work in Australia.

We will also build Landing Craft Medium and Landing Craft Heavy in Australia for the Australian Army, as part of a transformation that will optimise the Army's littoral manoeuvre capabilities, including land and maritime strike.

Most significantly, the Albanese Government has committed to one of the most profound national endeavours in Australia's history – the construction of conventionally armed, nuclear-powered submarines. This will see the Navy operate the most sophisticated and potent capability in its history.

We will also deliver a life-of-type extension program for our Collins class submarines to ensure there is no capability gap as we transition to nuclear-powered submarines.

These decisions have created an inter-generational pipeline of naval construction projects, with plans to construct or upgrade over 70 vessels in Australia.

The 2024 Naval Shipbuilding and Sustainment Plan (this Plan) sets out how the Albanese Government will deliver this historic investment to provide generational growth in our shipbuilding industry and create thousands of Australian jobs. It outlines a continuous program of construction activities over the coming decades, complemented by a resilient national sustainment network that supports force preparedness.

The 2024 Naval Shipbuilding and Sustainment Plan is underpinned by seven Industrial Cornerstones and the significant decisions that the Government has made to achieve this national endeavour.

The Albanese Government's initiatives include decisive steps to grow our shipbuilding and sustainment workforce. We have invested $1.5 billion to provide 500,000 Fee-Free TAFE and Vocational Education and Training places, along with $250 million in targeted investments to attract, train and retain the nuclear-powered submarine workforce. This investment includes an additional 4,000 Commonwealth-supported university places across Australia and scholarships to support tertiary students undertaking studies in priority science, technology, engineering and mathematics fields.

We are establishing a Skills and Training Academy to train the workers that will build and sustain our future naval ships and nuclear-powered submarines, and have established the Maritime Workforce and Skills Council to bring Government, industry and trade unions together as part of a tripartite approach to growing the workforce.

The Albanese Government is also investing in the infrastructure that is essential to the success of these critical maritime programs. This includes the construction of a new Nuclear-Powered Submarine Construction Yard at Osborne in South Australia and the establishment of a consolidated Commonwealth-owned Defence Precinct at the Henderson Shipyard in Western Australia.

The Naval Shipbuilding and Sustainment Plan will be updated as part of the biennial National Defence Strategy cycle, ensuring defence industry receives a regular drumbeat of demand signals on the Government's investment priorities in the maritime domain.

The long-term investment laid out in this Plan represents the Albanese Government's vision for continuous naval shipbuilding and sustainment, a Future Made in Australia and our commitment to keeping Australians safe.

**The Hon Richard Marles MP**
Deputy Prime Minister
Minister for Defence

**The Hon Pat Conroy MP**
Minister for Defence Industry and Capability Delivery
Minister for International Development and the Pacific

# 1

# Chapter 1: Strategic Rationale

## Australia's strategic environment

1.1 Australia's strategic environment is the most challenging since the Second World War. As outlined in the 2024 National Defence Strategy, strategic competition between the United States and China is being accompanied by an unprecedented conventional and non-conventional military build-up, taking place without strategic reassurance or transparency.

1.2 While the United States Navy remains the largest navy in the world by total displacement tonnage, China has the largest navy in the world by total number of ships. The majority of China's naval ships were launched within the last decade, reflecting a significant growth in China's shipbuilding capacity.

1.3 Aside from the major powers, shipbuilding has also undergone unprecedented growth within middle powers in the Indo-Pacific, with Japan and the Republic of Korea leading innovation in maritime production and output. The shipbuilding prowess of these countries has driven a rapid modernisation of their naval fleets.

1.4 The increase in both the quantity and quality of military ships operating in the Indo-Pacific has elevated the capability requirements for Royal Australian Navy vessels, which will need enhanced lethality and survivability to operate in a more complex environment. It has also increased the importance of the Australian Defence Force's (ADF) ability, with the support of its industry partners, to sustain, repair and deploy its maritime assets.

1.5 The National Defence Strategy provides a comprehensive approach to address the challenges that Australia faces. The foundational concept that underpins the National Defence Strategy is *National Defence* – a coordinated, whole-of-government and whole-of-nation approach that harnesses all arms of national power to defend Australia and advance our interests.

1.6 The National Defence Strategy sets out the Government's strategic framework to guide the significant and urgent changes that are required to transform Defence's capability, force posture, force structure, acquisition, recruitment and international engagement.

1.7 Under this framework, a Strategy of Denial has become the cornerstone of Defence planning. This strategy seeks to deter any conflict before it begins, prevent any potential adversary from succeeding in coercing Australia through force, support regional security and prosperity, and uphold a favourable regional balance.

1.8 The adoption of *National Defence* means that the ADF will shift from a balanced force capable of responding to a range of contingencies to an integrated, focused force designed to address Australia's most significant strategic risks.

1.9 Australia's position as an island nation means that our maritime capabilities play a key role in supporting *National Defence* and the Strategy of Denial. This highlights the importance of continuous naval shipbuilding and sustainment (CNSS) as a key arm of national power, underpinned by a resilient maritime industrial base that can keep Australia's vessels at sea to protect our national interests.

## Record investment in the Australian Defence Force

1.10 The complex strategic environment faced by Australia necessitated a rebuilding of Defence's investment program and a rigorous reprioritisation process to ensure that the capabilities the ADF needs now and in the future were prioritised and funded. In the 2024–25 Federal Budget, the Government provided an additional $50.3 billion to increase Defence spending on capabilities over the planning decade to 2033–34. With the release of the 2024 Integrated Investment Program, the Government accelerated the acquisition of defence capabilities and secured long-term projects that are critical to delivering the six priority capability effects identified in the Defence Strategic Review.

1.11 The Government has committed a record $330 billion investment in Defence capability over the decade through the 2024 Integrated Investment Program, representing a significant increase above the funding levels outlined in the 2016 Integrated Investment Program (IIP) and the 2020 Force Structure Plan (FSP).

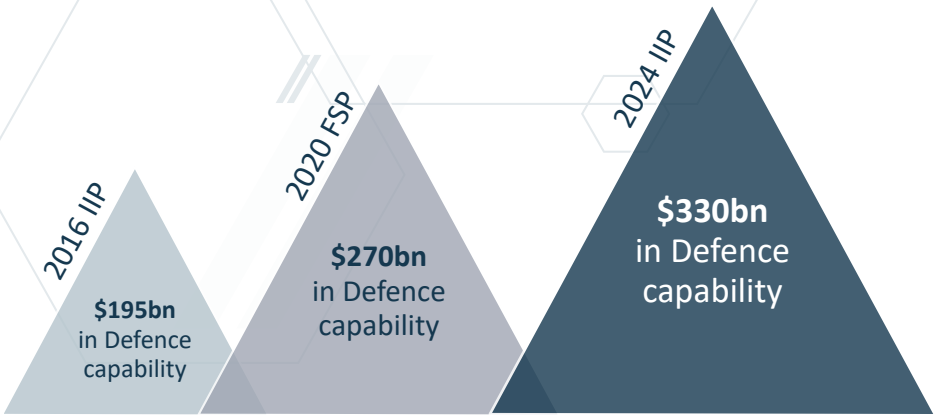


**Figure 1:** The rise in Government investment in Defence capability

1.12 Through the 2024 Integrated Investment Program, the Government has committed to the most significant investment in maritime capability in Australia's history. A total of $123–$159 billion will be invested over the decade in supporting maritime capabilities of the ADF, including:

- $53–$63 billion in conventionally armed, nuclear-powered submarines and facilities;
- $39–$55 billion in an enhanced lethality surface combatant fleet; and
- $12–$17 billion in optimised Army littoral manoeuvre capabilities and facilities.

1.13 These investments will expand the capabilities of the ADF to address Australia's most significant strategic risks. Australia's ability to construct, upgrade and sustain vessels is critical to a Strategy of Denial, the achievement of desired capability effects, and protecting and enhancing Australia's sovereignty.

**Table 1:** Summary of maritime capability investments as set out in the 2024 Integrated Investment Program

| Capability Element | Approved Planned Investment (2024–25 to 2033–34) | Unapproved Planned Investment (2024–25 to 2033–34) | Total Planned Investment (2024–25 to 2033–34) |
|---|---|---|---|
| **Undersea Warfare** | | | |
| *Conventionally armed, nuclear-powered submarines*[1] | $13bn | $40bn–$50bn | $53bn–$63bn |
| *Collins class submarines* | $1.0bn | $3.0bn–$4.0bn | $4bn–$5bn |
| *Subsea warfare and uncrewed maritime systems* | $170m | $5.0bn–$7.0bn | $5.2bn–$7.2bn |
| *Underwater range systems* | $250m | $300m–$400m | $550m–$650m |
| **Surface Fleet** | | | |
| *Hobart class destroyers* | $1.5bn | $5.0bn–$7.0bn | $6.5bn–$8.5bn |
| *Hunter class frigates* | $2.3bn | $20bn–$30bn | $22bn–$32bn |
| *General purpose frigates* | - | $7.0bn–$10bn | $7.0bn–$10bn |
| *Large optionally crewed surface vessels* | - | $400m–$500m | $400m–$500m |
| *Anzac class frigates* | $120m | - | $120m |
| *Arafura class offshore patrol vessels* | $2.2bn | $1.0bn–$1.5bn | $3.2bn–$3.7bn |
| *Evolved Cape class patrol boats* | $150m | - | $150m |
| *Nulka missile decoys* | $110m | $500m–$700m | $610m–$810m |
| *Surface fleet support systems* | $13m | $2.0bn–$3.0bn | $2.0bn–$3.0bn |
| *Supply class auxillary oiler replenishment ships* | $12m | - | $12m |
| *Canberra class landing helicopter dock* | $2m | $400m–$500m | $400m–$500m |
| *Surface fleet support infrastructure* | $160m | $3.0bn–$4.0bn | $3.2bn–$4.2bn |
| *Pacific support vessel* | $2m | $150m–$200m | $150m–$200m |
| *Hydrographic systems* | $1.0bn | - | $1.0bn |
| *Maritime mining* | $620m | $20m–$50m | $640m–$670m |
| *Guardian class patrol boats* | $510m | - | $510m |
| **Army Littoral Manoeuvre** | | | |
| *Army landing craft*[1] | $35m | $12bn–$17bn | $12bn–$17bn |
| **TOTAL:** | **$24bn** | | **$123bn–$159bn** |

Price basis: MYEFO 2023–24 (out-turned). Figures are rounded. Price basis reflects a point in time value, which is regularly adjusted in line with Defence's capability development, acquisition and approval processes. Figures do not include expenditure prior to FY24–25, nor expenditure beyond FY33–34.

1 Includes infrastructure and facilities

1.14 This Plan outlines the Government's approach to delivering maritime capability and uplifting the Australian maritime industrial base through the Continuous Naval Shipbuilding and Sustainment Enterprise (CNSS Enterprise).

1.15 The Plan includes the Naval Shipbuilding and Sustainment Forecast (Annex A), which sets out the 30-year shipbuilding and sustainment pipeline that will support the ADF's transition to an integrated, focused force, with key maritime capabilities built and sustained in Australia. These clear demand signals from Government to industry stakeholders will inform industry's investment in their own workforce, facilities and industrial capability.

1.16 Australia's acquisition of conventionally armed, nuclear-powered submarines will transform our Navy and greatly enhance the ADF's ability to project force, hold a potential adversary at risk further away from our shores and provide awareness of potential threats to Australia's security. This capability will improve Australia's ability to contribute to the stability and security of our region. During the transition to nuclear-powered submarines, Australia's submarine capability will be anchored by our six Collins class submarines, which remain a potent diesel-electric submarine capability.

1.17 In the future, our submarines will be complemented by a larger and more lethal surface combatant fleet. Through the acquisition of a fleet of Hunter class frigates, general purpose frigates, large optionally crewed surface vessels (LOSVs) and upgrades to our existing Hobart class destroyers, the Navy will have the capability edge required to deter conflict before it begins, support regional security and prosperity, and uphold a favourable regional strategic balance.

1.18 The remit of the CNSS Enterprise will also expand to meet the modern littoral capabilities required to support Army's transformation as part of an integrated, focused force. The acquisition of a fleet of landing craft, will give our land forces improved operational flexibility and an ability to project power across greater distances.

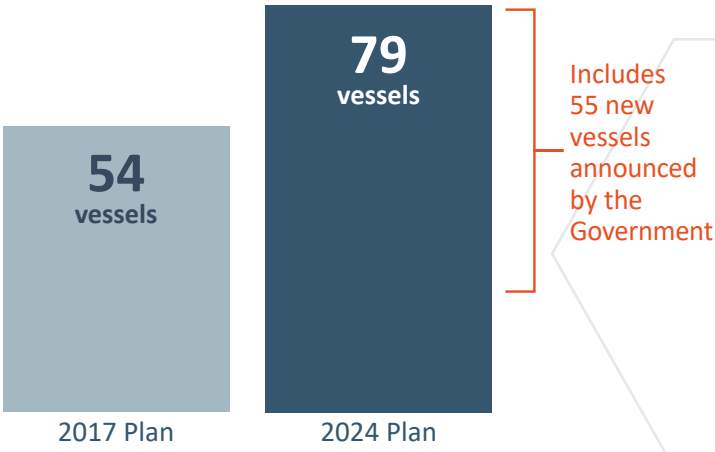


**Figure 2:** Government's commitment to acquire and upgrade more vessels

1.19 The Government's investments in maritime acquisition and upgrade projects are complemented by rising investments in the sustainment of maritime capability. The Government will invest over $2 billion annually to meet the sustainment requirements of the growing fleet. The resilience and preparedness of the Australian industrial base will be key to maintaining high levels of availability throughout the fleet.

1.20 The sustainment budget for current maritime capability projects is forecast to grow from $2.74 billion in 2024–25 to $2.98 billion in 2032–33. This growth will be further driven by the introduction of new and emerging capabilities.

## Industrial uplift through continuous naval shipbuilding and sustainment

1.21 A resilient national industrial base with the ability to scale and innovate is key to ensuring Australia can withstand, endure and recover from disruptions. The 2024 Defence Industry Development Strategy sets out seven Sovereign Defence Industrial Priorities (SDIPs), including CNSS, to support the development of our maritime industrial capability.

1.22 Ensuring sufficient and balanced demand will end the "boom-and-bust" cycles of the past. This Plan intends to provide the Australian industrial base with the demand signal required to confidently invest in its own technical capabilities, workforce, infrastructure and security.

1.23 This approach requires the evolution of a productive and resilient CNSS Enterprise, as set out in the National Defence Strategy. Defence will lead the whole-of-nation implementation in close collaboration with Enterprise partners across all levels of government, industry, academia, and trade unions.

1.24 The release of this Plan marks the start of a new approach to collaboration and communication between Defence and Australian industry and its workforce. To ensure the evolution of Defence's maritime and industrial requirements are clearly communicated, the Government will update this Plan biennially.

# Implementing the Naval Shipbuilding and Sustainment Enterprise Strategy

1.25 As highlighted in the National Defence Strategy, the Government's Naval Shipbuilding and Sustainment Enterprise Strategy is centred on two core objectives:

- uplift the capacity, productivity and resilience of Australia's shipbuilding and sustainment industrial base, to provide national preparedness as a direct input to the operations of the ADF; and
- generate ongoing economic, export and employment opportunities for decades to come.

1.26 To guide implementation, a set of CNSS Key Enablers were identified as fundamental inputs to capability – designed to grow capacity, productivity and resilience in the Australian industrial base. The development of the CNSS Key Enablers will be underpinned by a whole-of-nation approach and continued balanced investment in capability.


**Figure 3:** Strategic overview of the Naval Shipbuilding and Sustainment Enterprise Strategy

1.27 The Government's investment in CNSS will create the economic settings required to uplift the maritime industrial base where it makes strategic sense, and enhance resilience and preparedness through the CNSS Enterprise.

## A national approach to developing the CNSS Key Enablers

1.28 The CNSS Key Enablers are the core industrial capabilities required to uplift Australia's shipbuilding and sustainment capacity. The collaborative development of the CNSS Key Enablers underpins the technical proficiency and sovereignty of the industrial base.


**Figure 4:** The CNSS Key Enablers

1.29 Australia's industrial, workforce and infrastructure capabilities are national assets that fundamentally underpin the ability to deliver and sustain maritime vessels. As these capabilities develop in scale and complexity, security and innovation will need to remain an integral consideration.

1.30 This Plan contains seven Industrial Cornerstones (listed at Annex B) that inform the development of the CNSS Key Enablers. Defence will progress these in collaboration with Enterprise partners to identify opportunities for the Government's consideration.

1.31 Only through strong partnerships in the industrial base and across the CNSS Enterprise ecosystem can Australia achieve the co-dependent goals of maritime industrial uplift and the delivery and sustainment of the future integrated force.

## Skilled and experienced workforce

1.32 The Government's investments in the CNSS Enterprise will support thousands of Australians to grow new skills and pursue careers in shipbuilding and sustainment. By collectively investing in training and upskilling initiatives, we will ensure our workforce remains our greatest asset.

1.33 Under the current scope of approved maritime projects, the CNSS Enterprise will require over 8,500 direct jobs in naval shipbuilding and sustainment by 2030, in addition to the 20,000 direct jobs required to support the Nuclear-Powered Submarine Program over the next 30 years.

1.34 The Government has taken decisive actions to build a skilled and experienced workforce to support shipbuilding and sustainment ambitions. This includes:

- $250 million to fund initial skills, education and training initiatives to grow the workforce required for Australia's Nuclear-Powered Submarine Program, including over 4,000 Commonwealth-supported university places in science, technology, engineering and mathematics (STEM) courses across Australia;
- the establishment of the Maritime Workforce and Skills Council to support a tripartite approach to managing workforce risk and opportunity;
- with the Government of South Australia, progressing design and planning for the establishment of a Skills and Training Academy at Osborne, South Australia to train the nuclear-powered submarine and naval shipbuilding and sustainment workforce;
- with the Government of South Australia, developing a range of workforce initiatives as part of the South Australian Defence Industry Workforce and Skills Report and Action Plan, with the majority of these initiatives already underway;
- with the Government of Western Australia, developing the Defence Industry Pathways Program to support school leavers transitioning to careers in the maritime industrial base;
- expanding the successful Defence Industry Pathways Program to South Australia;
- launching the Shipbuilding Employment Pathways pilot initiative, to train up to 125 apprentices in critical trade occupations for naval shipbuilding;
- entering into an agreement with the governments of Western Australia and South Australia for the Schools Pathways Program;
- commencing international placements of the submarine industrial workforce at Pearl Harbor, Hawaii, United States to build the skills, knowledge and experience required to sustain Australia's future nuclear-powered submarine fleet; and
- collaborating with state and territory governments to deliver Fee-Free Technical and Further Education (TAFE) places to thousands of Australians through the National Skills Agreement.

# Fit-for-purpose infrastructure

1.35 Delivering and maintaining the range of capabilities planned under the CNSS Enterprise will require a network of modern facilities and fit-for-purpose infrastructure within the two principal shipyards at Osborne and Henderson, and Regional Maintenance Centres (RMCs) in Sydney, Perth, Darwin and Cairns.


**Figure 5:** Principal shipyards and Regional Maintenance Centres

1.36 Under this Plan, the Government will expand the capability and capacity of both principal shipyards, through:

- the design and construction of the Nuclear-Powered Submarine Construction Yard at Osborne North – expected to support up to 4,000 non-maritime jobs in its construction;
- further upgrades to Osborne South, including additional infrastructure to support the construction of Hunter class frigates and the upgrade of the Hobart class destroyers;

- the development of a Commonwealth-owned Defence Precinct at Henderson, supporting contingency docking and depot-level maintenance of nuclear-powered submarines, as well as the construction of Army landing craft and major surface combatants; and
- infrastructure upgrades at HMAS *Stirling* in Western Australia to support the establishment of Submarine Rotational Force-West under the AUKUS technology sharing partnership from 2027 and, subsequently, the operation of Australia's future nuclear-powered submarine fleet from the early 2030s.

## Industry partnerships and resilient supply chains

1.37 The Government will evolve its relationship with industry to form targeted and purposeful partnerships that will drive the focused development of our Australian industrial capabilities.

1.38 Through a coordinated and programmatic approach, Defence will lead the delivery of maritime capability and the uplift of the maritime industrial base in collaboration with Enterprise partners.

1.39 To support this, the Government has taken steps to enable the targeted growth of the maritime industrial base, through:

- developing a clear set of Detailed Sovereign Defence Industrial Priorities for CNSS within the Defence Industry Development Strategy;
- committing to the establishment of a Strategic Shipbuilding Agreement between Defence and Austal at Henderson in Western Australia;
- the appointment of KBR and an AECOM-Aurecon Joint Venture as the concept design partners for the Nuclear-Powered Submarine Construction Yard at Osborne;
- the selection of BAE Systems and ASC, who will form an integrated Joint Venture, as our Sovereign Submarine Build Partners for the construction of Australia's conventionally armed, nuclear-powered submarines (SSN-AUKUS);
- the selection of ASC as our Sovereign Submarine Sustainment Partner for Australia's conventionally armed, nuclear-powered submarines;
- almost doubling the number of industry primes under the Global Supply Chain Program from seven to 13;
- the selection of Thales Australia, Naval Ship Management (NSM) and NORSTA Maritime (NORSTA) as the Regional Maintenance Providers for the RMCs in Sydney, Perth, Darwin and Cairns;
- the release of the Defence Innovation, Science and Technology Strategy: Accelerating Asymmetric Advantage – Delivering More, Together; and
- an initial investment of $3.8 billion in the Advanced Strategic Capabilities Accelerator (ASCA) and progression of ASCA Mission 0 – the Ghost Shark program.

# 2

# Chapter 2: Shipbuilding and Sustainment Program

2.1 Australia's changing strategic environment and the role of the ADF in protecting Australia and its interests in the region are what drive the need for enhanced maritime capability.

2.2 The Government will evolve the ADF's force structure, posture and preparedness over three critical time periods to achieve a more impactful force posture:

- Now until 2025 (Epoch 1) – the **Enhanced Force-in-Being** will focus on immediate enhancements that can be made to the current force;
- 2026 to 2030 (Epoch 2) – the **Objective Integrated Force** will see the accelerated acquisition of critical capabilities; and
- 2031 and beyond (Epoch 3) – the **Future Integrated Force** will see the delivery of an ADF that is fit for purpose across all domains and enablers.

2.3 The AUKUS technology sharing partnership, the Independent Analysis of Navy's Surface Combatant Fleet, and the accelerated acquisition of general purpose frigates and landing craft are examples of the Government acting decisively to meet the capability requirements required to respond to Australia's strategic circumstances.

2.4 The Government's significant investments in maritime acquisition and sustainment will be delivered through a steady pipeline of capability projects at Australia's principal shipyards, RMCs and Defence bases. These capability projects have been scheduled to manage the timely requirements of the ADF and the long-term stability of works required to develop Australia's sovereign industrial capabilities.

2.5 The demand signal reflected in the Naval Shipbuilding and Sustainment Forecast (Annex A) is intended to provide greater certainty to the Australian industrial base and facilitate long-term investment in workforce and infrastructure. This Plan also contains an estimated forecast of vessel tonnage and workforce demand as a reflection of construction projects at principal shipyards (Annex C).

# An enduring submarine capability

2.6 A potent, agile and enduring submarine capability is key to preserving Australia's national security and ability to deter actions against Australia and its interests. As an island nation, submarines provide a strategic advantage through their ability to conduct surveillance operations and protect our maritime approaches.

2.7 Defence will prioritise the successful delivery of the Collins class submarine life-of-type extension (LOTE) program to ensure the ADF retains an enduring and potent submarine capability. This program will underpin Australia's transition to conventionally armed, nuclear-powered submarines through a stable industrial base and a suitably skilled and experienced workforce.

## Collins class submarines

2.8 The Collins class submarine remains one of the most capable conventional submarines in the world and is an essential element of the Navy, providing a strategic advantage in surveillance and protection of our maritime approaches.

2.9 Collins class submarine sustainment occurs across South Australia and Western Australia. Full-cycle docking activities are conducted at Osborne, South Australia, and mid-cycle docking activities are conducted between Henderson and HMAS *Stirling,* in Western Australia.

2.10 The Government has committed $4–$5 billion to ensure the Collins class submarines continue to be a potent and credible capability. This includes delivering the LOTE program, which will commence in 2026 with HMAS *Farncomb* at Osborne. This is expected to provide work for approximately 500 workers in South Australia.

2.11 The core work package for the LOTE will be conducted during the full-cycle docking periods at Osborne North and will allow each boat to operate safely for a further 10 years. The LOTE of the Collins class submarine fleet includes a series of selected capability upgrades and obsolescence management activities.

2.12 The Government has also signed a new four-year sustainment contract with ASC valued at over $2.2 billion. This secures South Australia and Western Australia as the centres of excellence for the sustainment of the Collins class submarines, directly supporting the employment of more than 1,100 workers across both states.

## The Optimal Pathway under the AUKUS technology sharing partnership

2.13 On 13 March 2023, Australia, the United Kingdom and the United States announced the Optimal Pathway to deliver conventionally armed, nuclear-powered submarines for Australia under the AUKUS technology sharing partnership.

2.14 The Optimal Pathway consists of three phases of collaboration among the AUKUS partners:

- from as early as 2027, a rotational presence at HMAS *Stirling* of one United Kingdom, and up to four United States nuclear-powered submarines as part of Submarine Rotational Force – West (SRF-West);
- the acquisition by Australia from the United States of three Virginia class submarines, with an option to seek agreement for up to two more if needed; and
- a trilateral program to develop and build a next-generation conventionally armed, nuclear-powered submarine, SSN-AUKUS, incorporating technology from all three AUKUS partners, with Australia to commence construction of its SSN-AUKUS submarines in South Australia by the end of this decade.

2.15 In July 2023, the Government established the Australian Submarine Agency as a statutory agency responsible for the implementation of Australia's Nuclear-Powered Submarine Program.

2.16 The Government will also establish a new independent statutory regulator, the Australian Nuclear-Powered Submarine Safety Regulator, to ensure nuclear safety within Australia's nuclear-powered submarine enterprise.

2.17 The phased approach of the Nuclear-Powered Submarine Program will create around 20,000 direct jobs over the next 30 years, supporting the Government's vision for a Future Made in Australia.

### Nuclear-Powered Submarine Program: Submarine Rotational Force – West

2.18 From 2027, there will be a rotational presence of one United Kingdom, and up to four United States nuclear-powered submarines at HMAS *Stirling* as SRF-West. The establishment of SRF-West will accelerate Australia's efforts to develop the capability to safely and securely own, operate and sustain its future nuclear-powered submarines.

2.19 As part of SRF-West, Australian personnel from the ADF and industry will support maintenance of SRF-West submarines. All work undertaken by Australian personnel as part of SRF-West will comply with Australia's domestic and international legal obligations, including safeguards and non-proliferation commitments.

2.20 SRF-West is the first step in building the necessary operational capabilities and skills to be 'sovereign ready'. This is the point at which Australia can safely and securely own, operate, maintain and regulate its own fleet of conventionally armed, nuclear-powered submarines.

2.21 Since the announcement of the Optimal Pathway, there have been three port visits by United States nuclear-powered submarines involving the USS North Carolina, USS Annapolis and USS Hawaii. The visit by USS Hawaii coincided with the visit of the USS Emory S. Land and resulted in the completion of the first Submarine Tendered Maintenance Period in Australia. This marked the first time ADF personnel directly participated in the maintenance of a nuclear-powered submarine in Australia, a pivotal step towards building Australia's skills to safely operate and maintain our sovereign conventionally armed, nuclear-powered submarines.

## Nuclear-Powered Submarine Program: Acquisition of Virginia class submarines

2.22 The Virginia class submarine is the latest class of nuclear-powered fast attack submarine in the United States Navy, with an active production line. The passage of the 2024 *National Defense Authorization Act* by the United States Congress authorised the transfer of three Virginia class submarines to Australia.

2.23 From the early 2030s, Australia will acquire at least three Virginia class submarines from the United States, with the potential to purchase two more if needed. This will ensure there is no capability gap during Australia's transition from the current diesel-electric submarine capability to nuclear-powered submarines.

2.24 The Defence Precinct at Henderson in Western Australia will be the location for depot-level maintenance activities and a contingency docking for our conventionally armed, nuclear-powered submarines. Further work to inform the design and construction of the Defence Precinct will occur in accordance with domestic processes and regulatory requirements.

## Nuclear-Powered Submarine Program: Delivery of SSN-AUKUS

2.25 The first Australian-built conventionally armed, nuclear-powered submarine, SSN-AUKUS, will be a state-of-the-art platform co-designed to leverage the best submarine technology from Australia, the United Kingdom and the United States. The combination of technology from all three AUKUS partners will deliver a superior submarine that meets Australia's long-term defence needs while bolstering trilateral industrial cooperation.

2.26 Australia will begin building its first SSN-AUKUS at Osborne North in South Australia by the end of this decade. At its peak, the construction of SSN-AUKUS is expected to create 4,000–5,500 direct jobs in South Australia.

**CNSS Industry Partnership: Sovereign Submarine Build Partners – ASC and BAE Systems**

In a significant milestone for AUKUS and Australian industry, the Australian Government selected ASC and BAE Systems as Australia's Sovereign Submarine Build Partners to build Australia's SSN-AUKUS submarines. On 13 November 2024, the Government announced that these companies had signed a trilateral collaborative mobilisation deed with the Australian Submarine Agency. This deed enables initial works to commence ahead of the establishment of a long-term incorporated Joint Venture within Australia. This partnership will support the uplift of Australia's industrial base in preparation for the construction of SSN-AUKUS by leveraging the existing skills and technical capabilities within ASC while also expanding and uplifting Australia's submarine industrial base.

## Nuclear-Powered Submarine Program: Sustainment of nuclear-powered submarines

2.27 Through the successful implementation of SRF-West and acquisition of Virginia class submarines, Australia will mature the industrial capabilities and regulatory frameworks required to operate and sustain nuclear-powered submarines. In March 2024, the Government announced the selection of ASC as the Sovereign Submarine Sustainment Partner for Australia's nuclear-powered submarines.

**CNSS Industry Partnership: Sovereign Submarine Sustainment Partner – ASC**

The Government has selected ASC as the Sovereign Submarine Sustainment Partner for the sustainment of nuclear-powered submarines. In addition to its existing role in sustaining the Collins class, selecting ASC allows industrial sustainment capacity to be lifted in a manner that meets the needs of nuclear-powered submarines while also enabling a more integrated approach to submarine sustainment. This partnership will leverage and grow existing industrial expertise to deliver both sovereign sustainment industrial capability and critical submarine capability to the ADF.

# The enhanced lethality surface combatant fleet

2.28 The Government commissioned the Independent Analysis of Navy's Surface Combatant Fleet to consider the size, structure and composition of Australia's surface combatant fleet and ensure it complements the capability provided by conventionally armed, nuclear-powered submarines. The analysis also examined the capability requirements and strategic timeframes set out in the Defence Strategic Review and reaffirmed in the National Defence Strategy.

2.29 Following consideration of the analysis and its recommendations, the Government announced its blueprint for a larger enhanced lethality surface combatant fleet in February 2024—more than doubling the number of surface combatants compared to previous plans. The future fleet will comprise 26 major surface combatants, consisting of:

- three Hobart class destroyers with upgraded air defence and strike capabilities;
- six Hunter class frigates to boost Navy's undersea warfare and strike capabilities;
- 11 new general purpose frigates that will provide maritime and land strike, air defence and escort capabilities;
- six new LOSVs that will significantly increase Navy's long-range strike capacity; and
- future destroyers to replace the Hobart class from the 2040s.

2.30 The additional investments by the Government in an enhanced lethality surface combatant fleet amount to $1.7 billion over the forward estimates and $11.1 billion over the next decade, as part of an overall commitment of $39–$55 billion in these naval capabilities.

## Hunter class frigates

2.31 The Hunter class frigate will be one of the most capable warships in the world optimised for anti-submarine warfare, equipped with advanced sonar systems, and will have a low underwater noise signature.

2.32 The construction contract for the first three Hunter class frigates commenced in 2024 at Osborne South, following a successful prototyping period to grow workforce skills and experience, and test the systems, processes, facilities and interfaces in the new shipyard. As part of prototyping, a number of schedule-protection blocks were constructed.

2.33 The Hunter class frigate will also be equipped with the Aegis Weapon System (Baseline 9) and the Saab Australia Australian Interface. Subject to feasibility studies, the Hunter class will also be able to deploy Tomahawk cruise missiles. At its peak, the construction of Hunter class frigates at Osborne is expected to support up to 3,000 direct jobs.

## Hobart class destroyer

2.34 The Hobart class destroyers will continue to provide enhanced air defence and strike capabilities for Navy through its 48 Vertical Launch System cells. The recent firing of a Tomahawk cruise missile from HMAS *Brisbane*, following firings of the Naval Strike Missile and Standard Missile 6 from HMAS *Sydney* earlier this year, demonstrate the pace that the Government has incorporated new longer-range missile defence and strike capability into the Navy. Australia will acquire more than 200 Tomahawk missiles through a $1.3 billion investment in Tomahawk missile weapons systems. This is complemented by the Government's commitment to acquire stockpiles of Standard Missile 2 IIIC and Standard Missile 6 under a $7 billion agreement, and stockpiles of Naval Strike Missile valued at over $1 billion.

2.35 The three Hobart class destroyers will serve Australia over the next two decades and beyond, and will receive rolling upgrades to remain operationally relevant and available. From mid-2025, investments to upgrade the three ships through the Destroyer Capability Enhancement Program will increase the lethality of the Hobart class. The upgrades include the integration of a modernised Aegis Weapon System (Baseline 9), Australian Tactical Interface, electronic warfare enhancements, maritime strike, air and missile defence capability, and communication modernisation. The upgrade work will occur at Osborne South and is expected to support around 450 jobs.

**CNSS Industry Partnership: Combat System Integration Collaboration Agreement**

In 2023, Defence signed a Combat System Integration Collaboration Agreement (CCA) with BAE Systems Maritime Australia, Lockheed Martin Australia, and Saab Australia. The CCA establishes a framework for the organisations to work collaboratively to design, integrate, test, and deliver the combat system on the Hunter class frigates and Hobart class destroyers, thereby developing critical capability within the Australian industrial base.

## Future destroyers

2.36 The Government has committed to building the future destroyer at Osborne South following the conclusion of the Hunter class frigates. As part of the Government's commitment to CNSS, the construction of the future destroyer will immediately follow the build of the Hunter class frigates. Future iterations of the Naval Shipbuilding and Sustainment Plan will reflect the development and progression of the future destroyer program.

2.37 Our trusted partner nations will likely consider similar future warship projects during this timeframe. These projects may present opportunities for joint learning and co-development of capabilities to inform future activities at Osborne South.

## General purpose frigates

2.38 In February 2024, the Government announced the accelerated acquisition of 11 general purpose frigates, with the first vessel to be delivered this decade. These ships will replace the Anzac class frigates and will be equipped for undersea warfare and local air defence in order to secure maritime trade routes and Australia's northern approaches.

2.39 In May 2024, a Request for Tender was released to the five shipbuilders of the exemplars identified by the Independent Analysis of Navy's Surface Combatant Fleet. In November 2024, the Government announced the down-selection to two shipbuilders, Mitsubishi Heavy Industries and Thyssenkrupp Marine Systems, to progress designs for the general purpose frigates.

2.40 These ships will be acquired through a hybrid offshore-onshore build strategy. The first three general purpose frigates will be built offshore, and successful and timely consolidation of the Henderson Defence Precinct will enable the remainder of the build to be constructed locally at Henderson. The domestic build will support CNSS and the transition from the construction of smaller naval vessels to major surface combatants at Henderson.

## Large optionally crewed surface vessels

2.41 The consolidation of Henderson Shipyard will create a pathway to the future construction of six LOSVs. The LOSVs will have 32 Vertical Launch System cells and provide enhanced lethality to Navy's surface combatant fleet. While it is the intention of the Navy to crew these vessels, a capacity for uncrewed operation could provide flexibility in the future.

2.42 The pathway for the construction of LOSVs at the future Henderson Defence Precinct from the mid-2030s has been enabled through the Government's commitment to a pipeline of shipbuilding work at Henderson. The precinct will first construct 18 Landing Craft Medium for Army, followed by eight Landing Craft Heavy, and then the remaining onshore build of the general purpose frigates for Navy.

## Anzac class frigates

2.43 The Anzac class frigates have served in the Royal Australian Navy with distinction since 1996. The weapons, sensors and countermeasure system of these vessels have been significantly upgraded since first entering service, including enhancements to the Saab Australia Combat Management System and installation of cutting-edge phased array radar technology, designed and produced in Australia by CEA Technologies.

2.44 The Anzac class frigates are currently being upgraded through the Anzac Midlife Capability Assurance Program, which is due to be completed in 2025. This upgrade involves multiple capability and sustainability improvements, including the installation of a new integrated mainmast structure and long-range air search phased arrays. This upgrade is being conducted at the Henderson Shipyard.

2.45 The accelerated acquisition of the new general purpose frigates will provide a more cost effective and lethal capability outcome, negating the need for the previously planned Transition Capability Assurance Program for the Anzac class.

2.46 Defence decommissioned the first-of-class HMAS *Anzac* on 18 May 2024, with a second Anzac class frigate expected to be decommissioned in 2026. The remaining Anzac class frigates will continue to operate into the 2030s, before being replaced by the general purpose frigates as they enter service.

## Minor war vessels and auxiliary fleet

2.47 The ADF's minor war vessels and auxiliary fleet have a range of applications, including combat support, constabulary and diplomatic tasks, surveillance, patrol, search and rescue, security operations and scientific research.

2.48 Australia's minor war vessels and auxiliary fleet have an important role to play in the stability and prosperity of our partners in the Indo-Pacific. The maritime capabilities set out in this section will strengthen the ADF's humanitarian operations, including responses to natural disasters in our region.

### Evolved Cape class patrol boats

2.49 The first Evolved Cape class patrol boat was launched at Henderson in September 2021, and since then the project has significantly contributed to the continuity of work and retention of a skilled workforce at the Henderson Shipyard.

2.50 In November 2023, the Government announced that it would invest $157 million to deliver two additional Evolved Cape class patrol boats for Navy. This will increase the number of Evolved Cape class patrol boats to 10. As at December 2024, eight Evolved Cape class patrol boats have been delivered, with the 10th boat scheduled to be accepted by the end of 2025.

2.51 The Government agreed to the recommendation of the Independent Analysis of Navy's Surface Combatant Fleet that Navy and the Australian Border Force (ABF) should both operate the Evolved Cape class patrol boats for civil military operations, to be sustained through Defence, and costs met by the operating force.

2.52 Defence continues to work with the ABF to mature commercial arrangements for the acquisition and sustainment of ABF Evolved Cape class patrol boats, including the development of a Memorandum of Understanding between Defence and the Department of Home Affairs.

## Guardian class patrol boats

2.53 The Pacific Maritime Security Program (PMSP) is the Government's program for increasing the national and regional maritime security of 16 partner nations. Two key components of the PMSP include the provision of Guardian class patrol boats and the Enhanced Aerial Surveillance Program, to which the Government has announced it will double funding for the 2024–25 financial year.

2.54 The steel-hulled Guardian class patrol boats add to the maritime capabilities of our partners in the region, improving their range, endurance and seakeeping abilities. The Government is also supporting regional partners to deploy the patrol boats through a comprehensive training, sustainment, safety and infrastructure package.

2.55 In June 2024, the Government ordered an additional two Guardian class patrol boats through a $39 million investment. This will increase the number of patrol boats being provided to Pacific Island countries under the PMSP to 24, with 22 delivered as at December 2024.

2.56 Austal is constructing the Guardian class at the Henderson Shipyard. The first boat of the class was provided to Papua New Guinea in 2018, with the final boat scheduled to be handed over in 2026.

## Arafura class offshore patrol vessels

2.57 The Government accepted the recommendation of the Independent Analysis of Navy's Surface Combatant Fleet to reduce the number of Arafura class offshore patrol vessels to be constructed from 12 to six.

2.58 Two of the vessels are being constructed at Osborne South in South Australia, with the remaining four vessels under construction at Henderson in Western Australia. The first-of-class vessel, NUSHIP Arafura, will be delivered in the first quarter of 2025. The second offshore patrol vessel, NUSHIP Eyre, is scheduled to commence sea trials in 2025.

## Sustainment of patrol vessels

2.59 Navy's fleet of Armidale class patrol boats is being gradually decommissioned. The sustainment arrangements for the new Evolved Cape class, the Arafura class and remaining Armidale class will be facilitated through the RMCs.

2.60 The Government also provides funding for the sustainment of Pacific and Guardian class patrol boats. These boats are sustained from Cairns, strengthening North Queensland's position as a strategic maintenance location for Australia and its regional partners.

### Supply class replenishment ships

2.61 The two Supply class replenishment ships, HMAS *Supply* and HMAS *Stalwart,* extend the range of fleet operations, enabling the resupply of fuel and materiel whilst deployed. Regular maintenance will be undertaken at Fleet Bases East and West. Deep maintenance will take place at RMC East.

### Canberra class landing helicopter dock

2.62 The two Canberra class landing helicopter dock (LHD) vessels, HMAS *Canberra* and HMAS *Adelaide,* are the largest ships ever constructed for Navy and will continue to provide the ADF with one of the most sophisticated amphibious operations capabilities in the world. In addition to deploying embarked forces, they can also conduct large-scale humanitarian and disaster relief missions.

2.63 The Canberra class LHDs will be upgraded in stages. The first stage is to be conducted progressively during planned maintenance cycles, and is scheduled to be completed in 2026. The Canberra class LHDs will continue to be sustained at RMC East.

### Bay class amphibious ship

2.64 HMAS *Choules* provides the amphibious capability required to support military, humanitarian and disaster relief operations in the Indo-Pacific region. HMAS *Choules* will continue to be sustained at RMC East.

### Huon class minehunter

2.65 The Huon class minehunters are fitted with a range of sensors to detect underwater mines and are equipped with remotely operated vehicles that inspect and neutralise mines. This class of vessels is homeported at HMAS *Waterhen* in Sydney.

## Army landing craft

2.66 In response to the National Defence Strategy and Defence Strategic Review, the Government has directed Army to be optimised for littoral manoeuvre with long-range land and maritime strike capability. The Government has prioritised and committed $7–$10 billion to acquire 18 Landing Craft Medium and eight Landing Craft Heavy for Army, with an additional $5–$7 billion for the supporting infrastructure. These vessels will be built by Austal at Henderson under the Strategic Shipbuilder Partnership Pilot, supporting CNSS at Henderson Shipyard well into the next decade, subject to successful commercial negotiations and ongoing performance.

2.67 The Government has accelerated the delivery of Landing Craft Medium and Landing Craft Heavy. Construction of these vessels is expected to create 1,100 direct jobs and more than 2,000 indirect jobs under the Government's plan for continuous naval shipbuilding in Western Australia.

2.68 Australia's Birdon has been selected as the preferred designer to work with Austal to deliver Landing Craft Medium. The Landing Craft Medium will replace the retiring mechanised landing craft (LCM-8) and be capable of sailing 500 nautical miles independently, with a range of up to 2,000 nautical miles when operating with Landing Craft Heavy. It will be designed to carry either one Abrams tank, one Redback infantry fighting vehicle or four High Mobility Artillery Rocket System launchers.

2.69 The Government has selected Landing Ship Transport 100 (LST100), designed by Damen Shipyards Group, as the preferred design for Landing Craft Heavy. This vessel will be around 100 metres in length and is capable of carrying more than 500 tonnes of military vehicles and equipment – it will be designed to carry either six Abrams tanks, 11 Redback infantry fighting vehicles, or 26 High Mobility Artillery Rocket System launchers.

**CNSS Industry Partnership: Strategic Shipbuilder Partnership Pilot**

On 23 November 2023, the Government announced it would secure Australia's shipbuilding capability and invest in the Western Australian defence industry through a new partnership between Defence and Austal at Henderson Shipyard.

Under the Strategic Shipbuilder Partnership Pilot, Austal will construct Landing Craft Medium and Landing Craft Heavy, subject to successful commercial negotiations and ongoing performance. A Strategic Shipbuilding Agreement will drive the development of a consolidated industrial capability required to meet the conditions for the onshore build of general purpose frigates.


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# 3

# Chapter 3: Workforce

3.1 A highly skilled and experienced workforce is essential to support the Australian industrial base that builds and sustains maritime capability. However, workforce is a broader national challenge across all areas of the ADF, Australian Public Service and defence industry, as reflected in the 2024 Defence Workforce Plan.

3.2 The maritime industrial base will support thousands of jobs and provide attractive career opportunities in the coming decades. Due to the scale and scope of the CNSS Enterprise, a national 'ecosystem' approach to investing in and managing workforce must be adopted, one that is cognisant of external pressures, competing priorities and inter-sector competition.

3.3 The performance of the domestic and international employment market, exemplified through low unemployment rates and rising competition for skills, creates pressure on the supply of qualified workers.

3.4 A failure to meet workforce demand may lead to an increased risk to the delivery of projects that are reliant on the supply of appropriately skilled and experienced personnel. Therefore, it is essential to develop domestic talent and enhance training programs to improve the supply of skilled workers required in the naval shipbuilding and sustainment sector.

# Increasing demand for skills and experience

3.5 Over the coming decades, thousands of job opportunities will be created across the maritime industrial base in a vast array of functions – from hands-on tradespersons to degree-qualified professionals working across the spectrum of planning, construction, testing, logistics, procurement, quality control and commissioning.

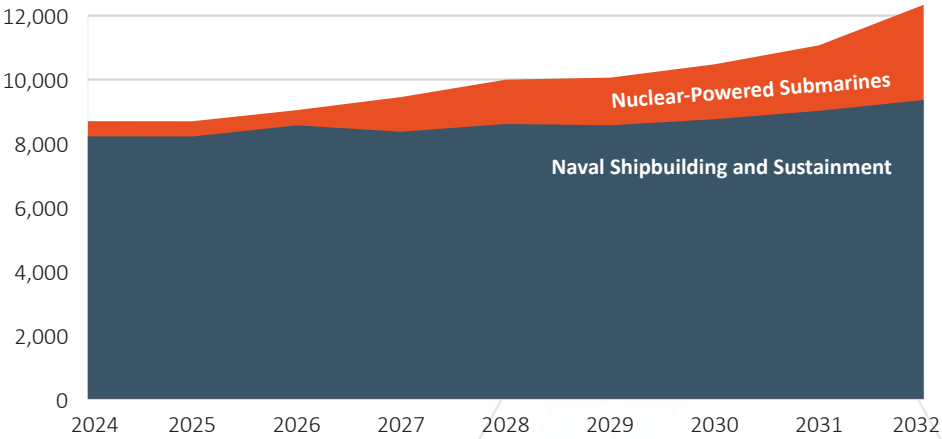



**Figure 6:** Aggregated Maritime Workforce Demand – as at June 2024

3.6 The data in Figure 6 is effective as of June 2024, and does not include the direct roles anticipated to be required for infrastructure and civil construction. Rapid workforce growth for SSN-AUKUS construction is forecast for the mid-2030s.

3.7 Technology advancements are transforming job roles within shipyards requiring a workforce adept in complex tasks, often drawing on skills from STEM.

3.8 Occupations within the maritime industrial base have an average lead time of between five and eight years, for individuals to complete formal learning and gain required experience. Some require ten years or more to be suitably qualified.

3.9 In the short term, industry will require a number of key occupations, including but not limited to: electrical, electronic and mechanical engineers; shipbuilding draftspeople; project managers; cyber and information and communication technology professions; and logisticians. In the future, demand for structural steel and welding trade workers, mechanical and electrical tradespersons, technicians and machinists will be high.

3.10 Managing competition for skills with requisite clearances within the industrial base is crucial to ensure that one project or program does not come at the cost of another. Equally, fragmented efforts to attract, skill and retain the workforce in the industrial base must be avoided to achieve its strategic objectives.

3.11 Workforce growth requires coordination and collaboration with our key Enterprise partners. The Government will undertake a tripartite approach with industry and trade unions to develop actions to attract, train, upskill and retain the workforce.

**Industrial Cornerstone: CNSS Enterprise & Maritime Workforce and Skills Council**

The CNSS Enterprise governance framework provides a structured approach to collaboration across the broad spectrum of stakeholders with a vested interest in naval shipbuilding and sustainment. As part of a broader CNSS Enterprise governance framework, the Government has established the Maritime Workforce and Skills Council to coordinate the active management of workforce demand pressures. The council will ensure existing and planned initiatives continue to support maritime Defence priorities. Chaired by the Minister for Defence Industry and Capability Delivery, the council brings together CNSS Enterprise partners to ensure alignment on critical initiatives and drive collaboration. The council will meet on a quarterly basis.

## Working collaboratively with industry to identify demand

3.12 Coordinated action by the Government and industry is required to develop a pipeline of skilled workers for the industrial base. Analysis of industry data on current and future workforce supply and demand will enable the timely management of workforce risk. Defence, in collaboration with Enterprise partners, will use these insights to develop pre-emptive strategies to meet the workforce requirements of the future.

3.13 Defence will deliver strategic workforce insights to identify workforce risks through the Workforce Planning and Intelligence Service (WPIS), developed in partnership with the University of Adelaide.

3.14 Originally designed to provide a view of maritime workforce requirements at principal shipyards, the WPIS will be reviewed to consider a national view of industrial workforce demand pressure. This proposed expansion would take into account RMCs and adjacent service sectors of defence industry (land, air, joint and space) – providing a more holistic picture of workforce risks facing maritime projects.

**Industrial Cornerstone: Workforce Planning and Intelligence Service (WPIS)**

Defence will develop options for a national cross-domain aggregated workforce view through the WPIS. This intelligence will give Defence and Enterprise partners a clearer view of demand-side pressures and inform more targeted co-designed supply solutions. The proposed WPIS expansion would provide advanced predictive analytics and tailored scenario planning services to inform future capability decisions on CNSS and the active management of Australia's industrial workforce capability.

## Targeted workforce initiatives

3.15 Delivering complementary national and state based initiatives and directing them towards the maritime domain is key to addressing the interconnected elements of the workforce challenge. The South Australian Defence Industry Workforce and Skills Taskforce (SADIWST) is a prime model for collaboration across all levels of government and with Enterprise partners to develop our workforce capabilities.

3.16 In consultation with the South Australian Government, Defence will partner with the Australian Submarine Agency to build the Skills and Training Academy, and design and deliver a range of pilot initiatives to target supply constraints in critical maritime occupations across Australia. The profile of these occupations will be agreed in collaboration with Enterprise partners. While industry is responsible for their workforce recruitment and retention, these pilot initiatives will prioritise growth across critical occupations to deliver a workforce pipeline with the skills required by industry.

3.17 The establishment of a Skills and Training Academy will support urgent industrial training requirements for the Nuclear-Powered Submarine Program, as well as the broader CNSS Enterprise. Through strong partnerships with all levels of government, industry, academia, and trade unions, the Skills and Training Academy will play a vital role in providing industry specific skilling and experience tailored to the needs of the shipyards. The Academy will:

- work with Australia's Vocational Education and Training (VET) providers, including TAFE, to support delivery of foundational training;
- deliver industry-specific skilling and training for workers in the CNSS Enterprise; and
- provide a dedicated campus in South Australia to support shipbuilding and nuclear-powered submarine training and skilling.

3.18 Collaboration across government agencies and industry to develop a diverse sovereign industrial workforce will ensure the needs of surface and sub-surface capability activities are met. This collaboration will underpin the successful delivery of the Nuclear-Powered Submarine Program.

**Industrial Cornerstone: Shipbuilding Pathways Program**

Defence will develop the Shipbuilding Pathways Program to understand the barriers to the recruitment and retention of workers in critical maritime occupations. Through whole-of-government collaboration and in close communication with Enterprise partners, this program will focus on the mechanisms required to increase recruitment and retention of priority skills. This will inform options to improve the supply of skilled and experienced personnel to the industrial base, and shape the composition of the future maritime workforce.

3.19 Workforce growth for the broader Defence industry is supported by initiatives such as the Defence Schools Pathways Program Grant, Defence Industry Internship Program, Skilling Australia's Defence Industry Program, and the Defence Industry Development Grants Program outlined in the Defence Industry Development Strategy. Directing these programs towards the maritime domain will help develop a pipeline of workforce with foundational skills to further build and develop the specialised skills required for the maritime industrial base – this will need to be a focus of the CNSS Enterprise.

3.20 The Government has funded a number of training initiatives aimed at the recruitment and upskilling of Australia's sovereign shipbuilding and submarine workforce, including the initiatives described in Figure 7 below:

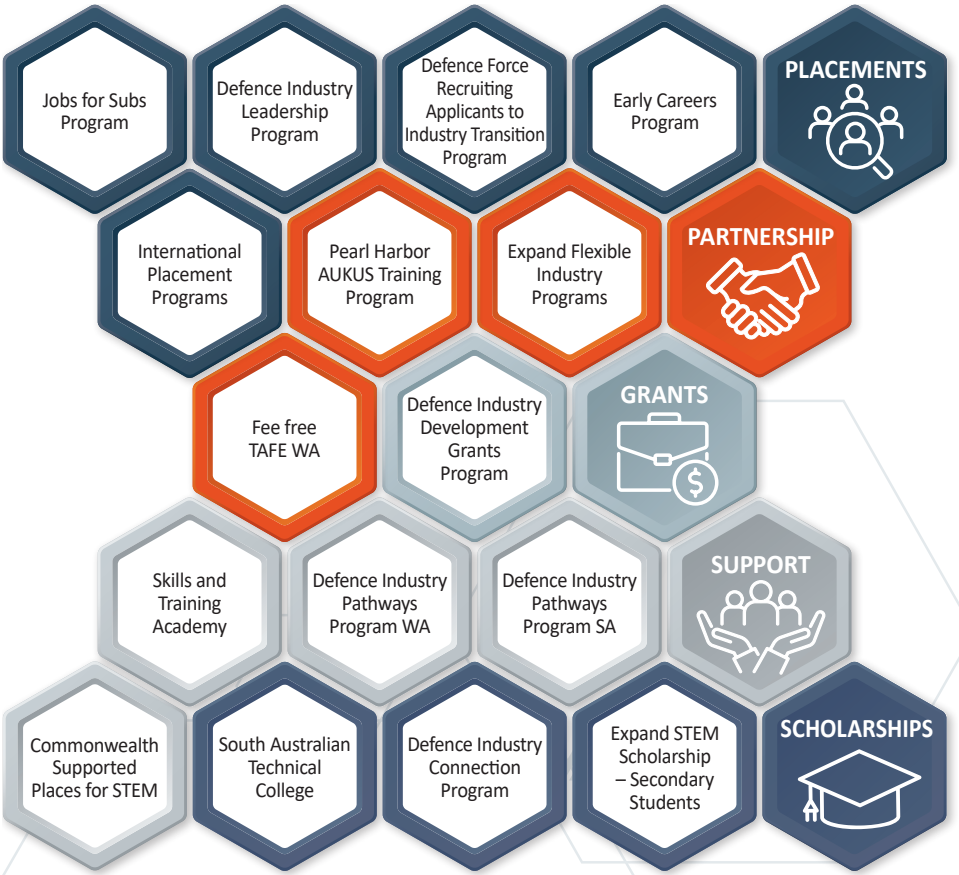



**Figure 7:** Workforce programs and initiatives

## Investment in education and training

3.21 The Government is implementing a multi-tiered approach to leverage employment, education, skilling and industry development programs with targeted initiatives. It aims to attract and develop the workforce that supports Australia's broader maritime industrial base.

3.22 At the national level, the Government has invested in dedicated Commonwealth supported places at universities across Australia and additional apprenticeship positions to increase the number of graduates, apprentices and trainees in key fields. The Government's National Skills Agreement is a five-year joint agreement between the Commonwealth, and states and territories to strengthen the VET sector. VET programs, like Fee-Free TAFE, will train future welders, electricians, metal fabricators and engineering technicians in addition to other skilled occupations.

3.23 National STEM engagement programs such as Women in STEM and STEM Professionals in Schools encourage greater uptake and attainment of STEM qualifications. These programs promote STEM careers and pathways, offer skills development opportunities for educators, and encourage collaboration across all levels of government, industry, academia and trade unions.

3.24 The Government is working with state and territory governments to consolidate shipbuilding and sustainment activities to maximise the availability and growth potential of the workforce. The demand outlook shows a significant growth in the Enterprise workforce is required, most notably in South Australia and Western Australia.

3.25 In Western Australia, Defence is collaborating with the Western Australian Government to implement the Defence Industry Pathways Program to transition school leavers to the CNSS Enterprise, and support intern and graduate programs targeting those studying a defence industry-related qualification. These initiatives are the result of ongoing collaboration through the Joint Department of Defence and Western Australian Government Henderson Taskforce.

3.26 In November 2023, the Australian Government and South Australian Government released the South Australian Defence Industry Workforce and Skills Report and Action Plan setting out 22 initiatives to attract, recruit and train the workforce needed in South Australia. Initiatives included encouraging school students to study STEM subjects by providing links to the exciting innovation, science and technology used in defence programs, and offering direct pathways for jobs in the CNSS Enterprise through scholarship, internship and traineeship programs.

3.27 Defence continues to support whole-of-government initiatives that promote employment pathways for Aboriginal and Torres Strait Islander personnel. This includes partnering with government agencies to deliver two entry level programs: the Indigenous Australian Government Development Program and the Indigenous Apprenticeship Program.

3.28 The associated CNSS Enterprise working group will seek to coordinate these various workforce and skilling initiatives to optimise effective and efficient outcomes.

## Incentivising careers in the CNSS Enterprise

3.29 Naval shipbuilding and sustainment offers diverse career opportunities to thousands of Australians with different skill sets. With the introduction of nuclear-powered submarines, the sector is set to expand to require more experienced workers and diverse skills.

3.30 Attraction, education and career pathway initiatives focused on naval shipbuilding and sustainment are essential. Current capability projects provide ideal on-the-job training and experience, especially to grow and develop the workforce required for Australia's Nuclear-Powered Submarine Program. Gaining experience at shipyards under the supervision of experienced workers will help accelerate the transition of new entrants to qualified workers in the maritime industrial base.

3.31 To ensure future success, it is critical to retain experienced supervisors and leaders who assure the quality of the work completed by their team, as well as providing mentoring, training and nurturing new talent entering the CNSS Enterprise. Maintaining a balance between experienced workers and workers gaining experience is key to ongoing workforce growth and productivity.

3.32 Australia's Defence and industrial workforce requires new skills to steward new technologies and maritime capabilities. Targeted planning and cooperation with trusted international partners is essential to enable skilled migrants to support Australia to develop skills in technology new to Australia, and advance other defence technologies.

3.33 To gain these skills and experience, international workforce placements with trusted partners for both Defence and industrial personnel will be used. Placements enable knowledge transfer and the ability to develop on-the-job experience. This enables personnel to return to Australia to train, supervise and lead the next generation of Australian workers in world-leading technology used in naval shipbuilding and sustainment programs. Personnel from trusted partners will also be hosted in Australia to kick-start the development of a workforce in technologies novel to Australia.

3.34 International placements are already in place for Navy personnel embedded with the United States Navy's Supervisor of Shipbuilding detachments to develop skills and experience.

3.35 Defence will continue to develop workforce capability required for the implementation of the Nuclear-Powered Submarine Program through the placement of Australian personnel in shipyards in the United Kingdom and United States. This will improve the transfer of skills and knowledge required to support the future construction, sustainment and operation of conventionally armed, nuclear-powered submarines in Australia.

3.36 The Department of Home Affairs is working with industry to streamline work migration processes and encourage greater international skills transfer to support the growing workforce. Measures such as streamlining visa processing, establishing a Designated Area Migration Agreement in South Australia, and priority processing for regional areas and accredited sponsors have been implemented.

3.37 The CNSS Enterprise offers numerous career opportunities, requiring a mix of skills and occupations for major projects over time. Workers with different skill sets will likely transition between projects as the demand for their skills varies.

3.38 The CNSS Enterprise will provide work that spans generations and balances high and lows in demand for specific roles across naval shipbuilding and sustainment. Through the Maritime Workforce and Skills Council and the underpinning working groups, precinct agreements and frameworks will be developed to share risk, consider mitigations and streamline worker mobility.

3.39 An agreed mobility framework within principal shipyards will minimise barriers to workers moving between projects, and have a positive impact on the retention of skilled workers and capability outcomes.

3.40 Defence will work with group training organisations, trade unions and industry to ensure common training qualifications are recognised across precincts and shipbuilders. This will be further aided by nationally recognised transferrable skills, reducing employment costs and removing disincentives for mobility. The Government will work with Enterprise partners to explore options for greater alignment.

3.41 Defence will work with Enterprise partners to establish and promote positive, respectful, and collaborative industrial relationships, deliver best-practice communications, and engage via an improved framework of consultation.

# 4

# Chapter 4: Infrastructure

4.1 To manage the scope of shipbuilding and sustainment activities contained in the 2024 Integrated Investment Program, the capacity of naval infrastructure must also grow. The maritime program of work will continue to be calibrated to manage the capacity of industry, workforce, infrastructure, and security requirements at principal shipyards, RMCs and Defence bases. Maintaining steady productivity without overwhelming the capacity of our shipbuilding and sustainment infrastructure is key to delivering capability to the ADF and industrial uplift.

4.2 Defence will work with industry partners to forecast and address capability and capacity challenges, and de-risk potential cost, schedule and scope impacts. This will provide the investment stability required for key stakeholders to share in the development of solutions and risk mitigation strategies.

4.3 The industrial uplift required at each of the principal shipyards, across the RMCs and Defence bases, will be distinctly different. The subsections of this chapter contain brief summations of the targeted industrial uplift required at each site.

## Osborne Naval Shipyard (South Australia)

4.4 The Osborne Naval Shipyard in South Australia consists of two distinct areas:

- Osborne Naval Shipyard – South (Osborne South), which includes a state-of-the-art, vertically integrated shipyard for the construction of Navy's complex warships; and
- Osborne Submarine Construction Yard – North (Osborne North), which includes the existing Collins class submarine maintenance yard and the site for the Nuclear-Powered Submarine Construction Yard.

4.5 Commonwealth and South Australian Government officials continue to engage collaboratively on the enhancement of the areas surrounding the Osborne precinct. This includes planning for adequate transport networks and wider zoning considerations to ensure supply chains and warehousing can be established near the shipyard.

## Osborne Naval Shipyard – South

4.6 Since new facilities were completed in 2020, Osborne South has been the construction site of two Arafura class offshore patrol vessels and Hunter class frigate prototyping activities.

4.7 The Hunter class frigate build will remain the foundation of construction continuity at Osborne South for the foreseeable future, followed by the future destroyer project which will maintain CNSS at Osborne South beyond the 2030s.


**Figure 8:** Osborne Naval Shipyard (South Australia)

## Osborne Naval Shipyard – North

4.8 Osborne North consists of the facilities where Collins class submarine sustainment and full-cycle docking activities occur and is the site for the Nuclear-Powered Submarine Construction Yard.

4.9 To support the planned construction of SSN-AUKUS at Osborne North, significant developments are required to support larger and more complex nuclear-powered submarines.

4.10 In May 2024, the Government announced that KBR and an AECOM-Aurecon Joint Venture had been selected as the design partners for the Nuclear-Powered Submarine Construction Yard.

4.11 The planned development of Osborne North will make the yard one of the most advanced technological hubs in the world. The Australian Submarine Agency is working closely with Australian Naval Infrastructure (ANI) and the Sovereign Submarine Build Partners to meet nuclear-powered submarine construction requirements, including certification and regulatory obligations.

4.12 The Nuclear-Powered Submarine Construction Yard will be in excess of 75 hectares and will be delivered through ANI to the highest standards of safety, security and safeguards. At its peak, up to 4,000 workers will be employed in the design and construction of the yard.

## Industrial uplift at Osborne Naval Shipyard

### Fit-for-purpose **INFRASTRUCTURE**

In **Epoch 1**, enabling works for the construction of the Nuclear-Powered Submarine Construction Yard at Osborne North will prepare the site for future activities. In **Epoch 2**, the construction of the Nuclear-Powered Submarine Construction Yard is anticipated to commence by 2025 to deliver the works required to commence construction of SSN-AUKUS this decade. Osborne South will undergo further facilities upgrades including a new blast and paint facility, outfitting support tower, and warehousing leasing solutions in **Epoch 1,** capable of supporting Hunter class construction and Hobart class upgrades.

### Skilled and experienced **WORKFORCE**

The development of an expanded WPIS and planning for the Shipbuilding Pathways Program in **Epoch 1** will improve the understanding and management of workforce capacity and capability at Osborne.

Forecasting indicates a demand of around 4,000 jobs in South Australia in **Epoch 1**, with a focus on technical and trade roles in heavy and light fabrication and maritime engineering. In **Epoch 2**, the South Australian workforce will grow to support over 5,000 jobs, with a continued focus on technical and trade roles, including mechanical and industrial engineering.

The construction of the Skills and Training Academy in **Epoch 2** will become a central enabler for developing the skilled and experienced workforce required to deliver both nuclear-powered submarines and broader naval shipbuilding and sustainment projects.

### **INDUSTRY** partnerships and resilient supply chains

The Sea Systems Implementation Program (see Chapter 5) will leverage contributions from maritime projects at Osborne in **Epoch 1**. Informed by the outcomes of the Sea Systems Implementation Program, Defence will target the strengthening of supply chains and development of Tier 2 businesses in **Epoch 2**. Defence will continue to leverage the expertise of Enterprise partners at Osborne including ASC, BAE Systems Maritime Australia, Lockheed Martin Australia and Saab Australia, to drive sustained industrial uplift at the site.

### **SECURITY** standards and culture

The Identity Assurance Program pilot at Osborne Naval Shipyard will be assessed under the Maritime Security Assurance Program in **Epoch 1**. This will inform the future of the pilot at Osborne and the viability of expanding the program to other shipbuilding and sustainment sites.

# Henderson Shipyard (Western Australia)

4.13 The Henderson Shipyard is located on the eastern shore of Cockburn Sound, south of Perth in Western Australia. The site is predominantly owned by the Western Australian Government and managed through leases with multiple entities, with a Common User Facility supporting the repair, maintenance and construction of naval and commercial vessels.

4.14 Henderson plays a crucial role in the maritime industrial base as one of Australia's principal shipyards for the construction of minor naval vessels and Army landing craft, sustainment and upgrades, as well as the planned construction of the general purpose frigates and LOSVs.

4.15 As the capability requirements of Navy and Army expand, Henderson's role in shipbuilding and sustainment activities will continue to grow and become more complex. The Government has also confirmed that nuclear-powered submarine contingency docking and depot-level maintenance will be conducted at Henderson, necessitating significant investment in additional infrastructure.


**Figure 9:** Current layout of Henderson Shipyard

## Henderson consolidation

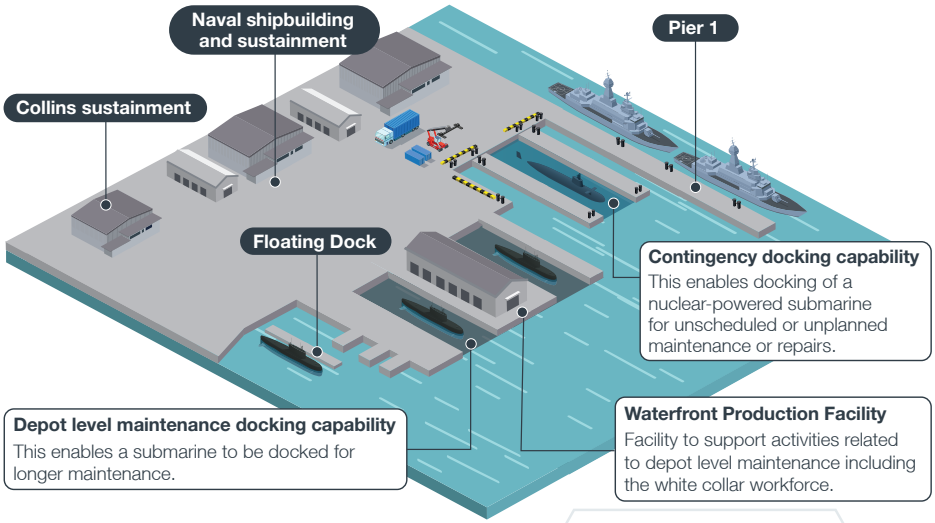
4.16 The 2023 Defence Strategic Review noted the critical role played by the Henderson Shipyard in Western Australia, but observed that there was not enough work to sustain the number of shipbuilders located there. It recommended that industry consolidation options for the Henderson Shipyard be examined as a matter of urgency. The Government agreed to this recommendation and reaffirmed the importance of Henderson to Australia's maritime industrial base.

4.17 In November 2023, the Government announced a Strategic Shipbuilder Partnership Pilot with Austal, as a first significant step towards consolidation at Henderson. In October 2024, the Government announced it would establish a consolidated Commonwealth-owned Defence Precinct at Henderson Shipyard as the critical next step in delivering continuous naval shipbuilding in Western Australia.

4.18 The Defence Precinct at Henderson will support the build of general purpose frigates and Army landing craft, with requisite large vessel infrastructure to form part of the precinct. The Government also confirmed that the Defence Precinct at Henderson would be the home of depot-level maintenance and contingency docking for Australia's future conventionally armed, nuclear-powered submarines.

4.19 The Government will make an initial investment of $127 million over three years to progress planning, consultations, preliminary design, feasibility studies and enabling works for the Henderson Defence Precinct.

4.20 Henderson infrastructure planning will set out the approach for managing the delivery of new infrastructure. It will involve the reassessment of capacity and capability requirements, including for nuclear-powered submarines, Collins class submarines, as well as surface combatant and Army landing craft construction and sustainment requirements.




*Indicative pictorial of some elements of the proposed Henderson Defence Precinct which will be refined as planning, design and feasibility studies are progressed. Precinct boundaries to be determined.*

**Figure 10:** Indicative pictorial of Henderson Defence Precinct

4.21 Requirements for the future Henderson Defence Precinct include facilities to support contingency docking and depot-level maintenance for nuclear-powered submarines, as well as requisite large vessel infrastructure to support the construction and maintenance of larger more complex surface vessels. Defence, the Australian Submarine Agency and the Western Australian Government are working closely together to develop practical options for implementing the Defence Precinct. These outcomes will be communicated in future iterations of this Plan.

4.22 The successful establishment of the Henderson Defence Precinct will contribute to the industrial uplift required to deliver Australia's *National Defence* approach and future-proof Henderson's role in delivering and sustaining a future integrated force.

**Industrial Cornerstone: Henderson consolidation**

Henderson consolidation will initially focus on the delivery of enabling works to progress the optimal infrastructure approach to developing the Henderson Defence Precinct, including preliminary shipyard design and planning studies. This will also involve the establishment of program management and commercial arrangements for critical path activities, such as environmental approvals and detailed planning for breakwater works. This will happen in close consultation with the Government of Western Australia and with stakeholders at the Henderson Shipyard. To reflect the criticality of Henderson consolidation, a dedicated taskforce has been established within Defence to focus on the expedited implementation activities and future phases of work.

## Industrial uplift at Henderson Shipyard

### Fit-for-purpose **INFRASTRUCTURE**

In **Epoch 1**, Henderson consolidation will progress works for the development of a Defence Precinct at Henderson. The establishment of the Henderson Defence Precinct will deliver the infrastructure capability required to deliver surface ship sustainment; continuity of existing Collins class sustainment; nuclear-powered submarine contingency docking and depot-level maintenance, as well as the construction of Landing Craft Medium and Heavy; general purpose frigates; and LOSVs at Henderson. Informed by planning and preliminary design activities conducted in **Epoch 1**, future iterations of this Plan will reflect Government decisions on development of key infrastructure from **Epoch 2**.

### Skilled and experienced **WORKFORCE**

The development of an expanded WPIS and rollout of the Shipbuilding Pathways Program in **Epoch 1** will improve the understanding and management of workforce capacity and capability at Henderson. Forecasting indicates a demand of over 3,000 jobs in Western Australia in **Epoch 1**, with a focus on technical and trade roles in maritime engineering and technology. In **Epoch 2**, the workforce in Western Australia will expand to support almost 4,000 jobs, with an added emphasis on mechanical tradespeople.

### **INDUSTRY** partnerships and resilient supply chains

The Sea Systems Implementation Program (see Chapter 5) will leverage contributions to industrial capability from maritime projects at Henderson in **Epoch 1**. Informed by the outcomes of the Sea Systems Implementation Program, Defence will target the strengthening of supply chains and development Tier 2 businesses in **Epoch 2**. Defence will continue to collaborate and coordinate with the Western Australian Government, industry and trade unions to consolidate the Defence presence at Henderson and drive sustained industrial uplift.

### **SECURITY** standards and culture

The Maritime Security Assurance Program will assess the current security measures at Osborne and advise on the tailored requirements of Henderson Shipyard, including the implications of a Defence precinct at Henderson in **Epoch 2**.

# National sustainment network

4.23 The ability to continuously sustain and upgrade naval capabilities within Australia is a critical element of Australia's approach to *National Defence*.

4.24 The Government's annual investment of over $2 billion in fleet sustainment funds a national network of maintenance activities in Sydney, Perth, Adelaide, Darwin and Cairns. As the Army's maritime assets grow in size and complexity, further opportunities will emerge in sustaining its maritime vessels.

4.25 The distribution of sustainment works across the country, supported by collaborative commercial partnerships with industry and a mature network of supply chains, will be a key driver of Australia's national resilience. Sustainment also represents new opportunities for Australian industry participation, directly supporting the sovereign industrial uplift.

4.26 Through a national network of RMCs and Defence bases, Defence will drive higher levels of fleet availability, industrial resilience and force preparedness.

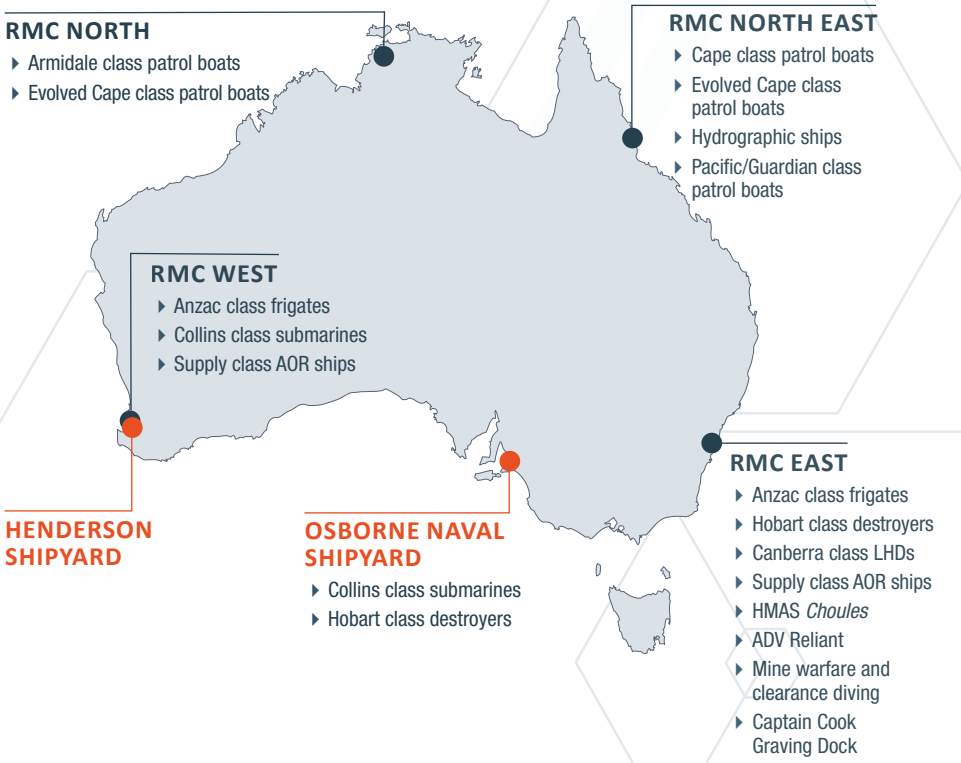



**Figure 11:** National view of fleet sustainment activities

4.27 The maritime industrial base will require a modern sustainment arrangement that consistently ensures our suite of complex naval capabilities are available, reliable and fit-for-purpose.

# Maritime Sustainment Model

4.28 The Maritime Sustainment Model represents an evolving approach to surface fleet sustainment, with a focus on improved asset management and building industrial capability to drive efficiency and resilience.

4.29 Surface fleet sustainment is delivered through a network of RMCs in Sydney, Perth, Darwin and Cairns, established through Plan Galileo. These centres bring together Defence, prime contractors, local businesses and suppliers using local infrastructure, and personnel to deliver Navy's surface fleet maintenance and modernisation requirements.

4.30 Each RMC is supported by a Regional Maintenance Provider. In partnership with Defence, these providers drive local industry engagement, coordinate maintenance activities and ensure that the arrangements at each RMC are tailored to the industrial conditions of that region. Each contract with a Regional Maintenance Provider includes incentives that encourage greater work opportunities for small and medium businesses.

4.31 In January 2022, NORSTA was announced as the Regional Maintenance Provider for RMC North East (Cairns) as part of a five year contract valued at $70 million. In December 2023, the Government awarded an additional five-year contract to NORSTA valued at $150 million for RMC North (Darwin). The contract for RMC North is expected to create up to 37 direct jobs and 56 indirect jobs in the region.

4.32 In November 2022, the Government awarded a five-year contract valued at up to $300 million to Naval Ship Management (NSM) to be the Regional Maintenance Provider for RMC West (Perth). The contract is expected to create up to 150 local jobs over the contract period.

4.33 In November 2023, the Government awarded a seven-year contract valued at $2 billion to Thales Australia to be the Regional Maintenance Provider for RMC East (Sydney). The contract is expected to create up to 120 direct jobs and around 800 jobs in the broader ship repair workforce over seven years.

**CNSS Industry Partnership: Regional Maintenance Providers**

The Government has selected three Regional Maintenance Providers – Thales Australia, NSM, and NORSTA – to build industry capability in the regions. Enhanced rolling contractual arrangements give these Regional Maintenance Providers and their supply chains greater certainty to invest in future growth, whilst supporting higher levels of fleet availability.

4.34 By creating consistent surface fleet sustainment demand, Defence offers confidence and stability to regional industry and drives resiliency in the broader Australian industrial base. Defence is currently adjusting its acquisition processes to better contemplate sustainment requirements earlier in the procurement process.

4.35 Defence will work with key Enterprise partners to implement the Maritime Sustainment Model, adapting to the sustainment requirements of recent capability acquisition announcements. This will support the continued development of the industrial capability and capacity required for future sustainment activities.

4.36 By shaping infrastructure requirements in collaboration with local industries, we will curate an enduring sovereign surface fleet sustainment capability.

4.37 The Government will continue to implement the Maritime Sustainment Model to deliver consistently high-quality outcomes at the waterfront. As part of this process, Defence will work with stakeholders to ensure infrastructure is fit-for-purpose to support productivity and efficiency in the delivery of sustainment activities.

## Defence bases and maritime precincts

### HMAS *Stirling* (WA)

4.38 HMAS *Stirling* comprises Fleet Base West and is the Navy's primary port on the west coast of Australia. It is the homeport to four Anzac class frigates, HMAS *Stalwart*, six Collins Class submarines and a range of civilian crewed support vessels, including MV *Stoker* and MV *Besant*. HMAS *Stirling* frequently supports ship visits from the east coast and partner nations conducting operations and training activities.

4.39 To accommodate the future Hunter Class frigates, wharves are being significantly lengthened and facilities upgrades are underway. An additional 400 metres of berth space will be delivered to support the increasing size of the future Navy fleet including the future nuclear-powered submarines.

4.40 The Government will invest up to $8 billion over the decade to upgrade HMAS *Stirling* and other supporting facilities in Western Australia to support future nuclear-powered submarine operations and basing. Defence and the Australian Submarine Agency will coordinate to progress upgrades to HMAS *Stirling* and the prioritisation of infrastructure works to support SRF-West activities commencing from as early as 2027.

## Garden Island (NSW)

4.41 Fleet Base East and the Garden Island Defence Precinct is the Navy's primary east coast base. It is the homeport to three Hobart class destroyers, three Anzac class frigates, two Canberra class amphibious ships, HMAS *Supply* and HMAS *Choules*. A range of civilian crewed support vessels also operate from Fleet Base East.

4.42 As part of the Garden Island Defence Precinct Redevelopment Project, a package of upgrades and remediation works will modernise the Captain Cook Graving Dock to meet contemporary standards and to support the future fleet.

## HMAS *Waterhen* (NSW)

4.43 HMAS *Waterhen* is the Navy's leading establishment for mine warfare. It is home to two Huon class minehunters, the Sail Training Ship 'Young Endeavour', and the Multi Role Aviation Training Vessel MV *Sycamore*. HMAS *Waterhen* also provides secure berthing and support.

## HMAS *Cairns* (QLD)

4.44 HMAS *Cairns* is the homeport to patrol boats and hydrographic survey ships. The naval base also supports frequent visits from ships conducting operations and training activities to the north of Australia. Berth space is supplemented through a commercial lease arrangement which allows Defence access to the Sugar Wharf through the 2030s.

4.45 HMAS *Cairns* is being upgraded to accommodate the Arafura class offshore patrol vessels and additional maritime capabilities. Major enhancements will include a new wharf, ammunition storage and support facilities. Major maintenance for Cairns-based ships is conducted at commercial premises at the adjacent Cairns Marine Precinct.

4.46 The Queensland Government is constructing a Common User Facility adjacent to HMAS *Cairns.* Once complete, companies currently providing support to Defence will utilise this facility for naval sustainment and maintenance activities.

## HMAS *Coonawarra* (NT)

4.47 HMAS *Coonawarra* is located on the southern boundary of Larrakeyah Defence Precinct in Darwin. It is the main support base for patrol boats, homeport to a number of Army landing craft, and supports frequent visits of ships conducting operations and training activities to the north of Australia. This facility is also being upgraded to support the future operations of the Arafura class offshore patrol vessel.

4.48 The harbour basin will be dredged and wharves strengthened and extended to support greater fleet flexibility. New logistics and support facilities, an outer wharf, and a fuel storage facility have all been constructed.

4.49 The Darwin Marine Industry Park will enable the maintenance and servicing of Defence and ABF vessels, along with commercial vessels from the oil, gas and marine industries and private vessels.

## Townsville and Brisbane (QLD)

4.50 The main supporting base of the current Army landing craft capability is at Ross Island, Queensland. The Government has announced the new littoral capability will operate from the Northern Territory and Queensland.

## Northern bases for Army littoral manoeuvre vessels

4.51 The Government is investing $5–$7 billion in new facilities in the Northern Territory, North Queensland, and South East Queensland, to house and support Army's littoral manoeuvre capabilities and enable logistics vessels to be loaded and unloaded. This is part of a program of works aimed at ensuring Australia has a logistically connected and resilient set of bases, ports and barracks in northern Australia. This is pivotal to enhancing force projection and improving Defence's ability to sustain operations through crisis or conflict.

**Industrial Cornerstone: National Maritime Infrastructure Master Plan**

The National Maritime Infrastructure Master Plan will identify the sovereign Australian maritime infrastructure needed to build and sustain the current and future fleet of surface and sub-surface vessels. The plan will baseline extant infrastructure capacity and capabilities, and identify critical points of failure and constraints in maritime shore-based infrastructure. The baseline will set the foundation for optimisation of a national infrastructure plan in collaboration with government agencies and Enterprise partners.

## Industrial uplift across Regional Maintenance Centre network

### Fit-for-purpose **INFRASTRUCTURE**

Develop National Maritime Infrastructure Master Plan in **Epoch 1**, including RMC requirements for the next decade. This will inform proposed upgrades in **Epoch 2** to:

- RMC East (Sydney) and RMC West (Perth) infrastructure
- RMC North (Darwin) and RMC North East (Cairns) infrastructure to sustain Navy, ABF, and Army vessels, and visiting ships
- Increase deep-level maintenance capabilities to support the future fleet objectives.

### Skilled and experienced **WORKFORCE**

The development of an expanded WPIS and Shipbuilding Pathways Program in **Epoch 1** will improve the understanding and management of workforce capacity and capability at RMCs. RMCs will work with Shipbuilding Pathways Program to identify critical workforce skill development required for future fleet sustainment through the development of a dedicated Sustainment Workforce Development Plan in **Epoch 1** and implementation throughout **Epoch 2**.

### **INDUSTRY** partnerships and resilient supply chains

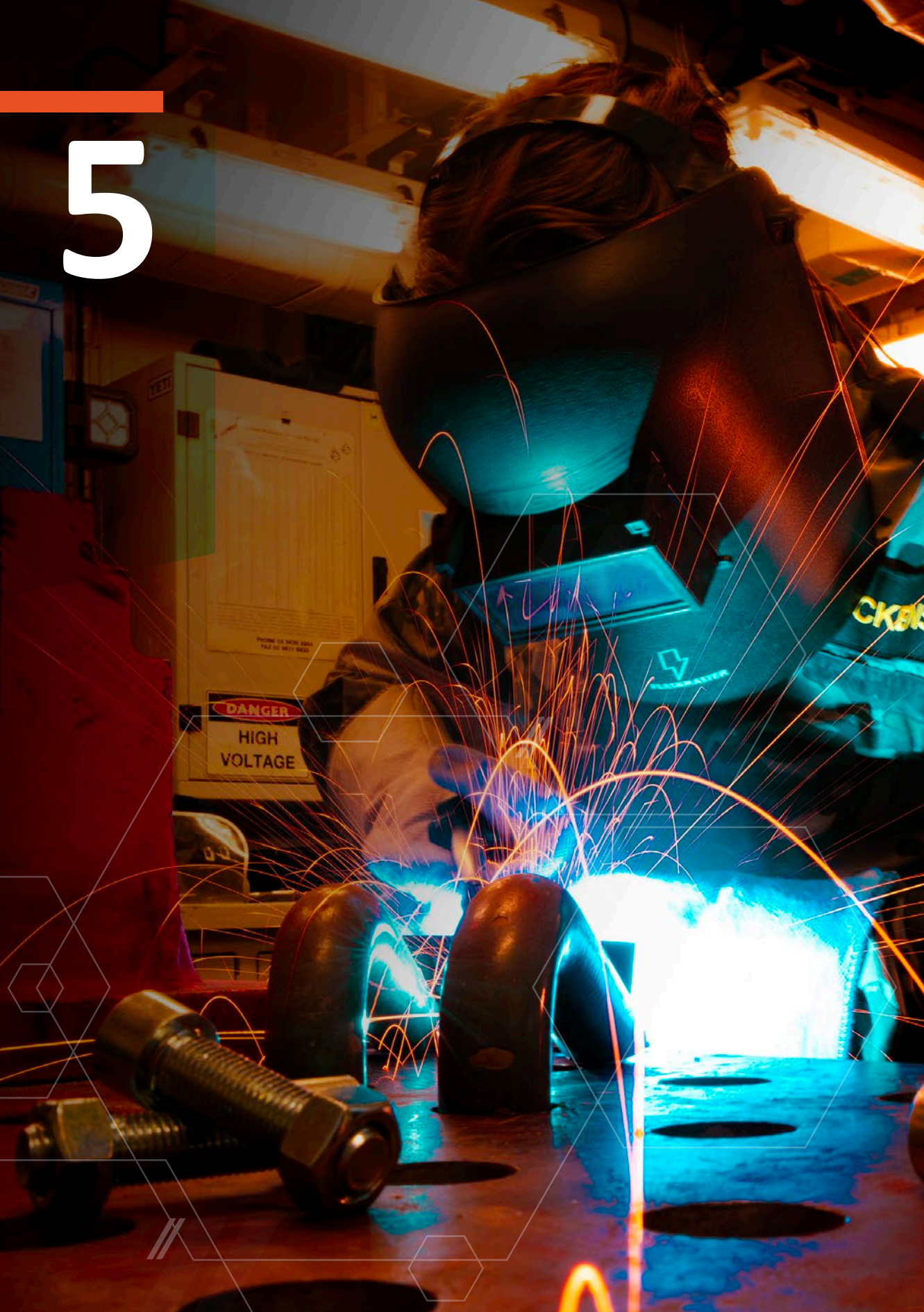
The Sea Systems Implementation Program (see Chapter 5) will leverage contributions from maritime projects across the RMC network in **Epoch 1**. Informed by the outcomes of the Sea Systems Implementation Program, Defence will target the strengthening of supply chains and development Tier 2 businesses in **Epoch 2**.

Defence will continue to collaborate with Regional Maintenance Providers to bolster industrial capability, productivity and output. Defence will target improved commercial arrangements to reduce barriers to entering RMC network supply chains.

### **SECURITY** standards and culture

Defence will work with Regional Maintenance Providers to develop standardised security processes across the RMC network in **Epoch 1**.

# 5



# Chapter 5: Industry

5.1 The National Defence Strategy articulated the critical role industry plays in *National Defence*, emphasising the importance of a sovereign industrial base in developing higher levels of resilience and preparedness and delivering economic benefit through investment and jobs. A sovereign industrial base will reduce reliance on international supply chains and lessen project impacts during periods of resource scarcity or conflict.

5.2 The Government is committed to supporting the growth of Australia's defence industrial capability and capacity where it makes strategic sense. Defence will partner with industry to achieve Enterprise-level objectives, including:

- striving for increased collaboration across Enterprise partners;
- aggregating CNSS demand to inform investment in workforce and industrial facilities;
- promoting spare parts commonality across the fleet, especially for high-turnover parts;
- connecting maintenance knowledge with system design and integration;
- encouraging innovation, science and technology solutions;
- facilitating engagement with other Government investments and support programs;
- providing supply chain visibility to Defence's security threat analysts; and
- supporting costs associated with building additional resilience industrial base solutions.

5.3 The Defence Industry Development Strategy explains that Australia's industrial base has to be capable of delivering to meet Defence's needs, resilient to disruptions, competitive in supporting the Defence mission, and innovative in developing the asymmetric technologies required by Defence.

## Building resilient supply chains through prioritisation

5.4 Australia's industrial base must have sufficient commercial and supply chain reliability to deliver outcomes during times of disruption or crisis. Industrial prioritisation enables Australia to build the industrial capability Defence needs to meet the challenges of changing strategic circumstances. In the maritime context, it is critical that we reinforce and strengthen Australia's sovereign military and industrial capabilities.

5.5 CNSS is identified in the Defence Industry Development Strategy as the second of seven Sovereign Defence Industrial Priorities (SDIPs). SDIP 2 is an ordered framework of maritime components that should be designed, supplied, sustained, upgraded or developed in the context of a sovereign solution, providing resilience and preparedness in the industrial base.

5.6 It is important that Defence works with industry partners to establish the success measures that underpin the achievement of the system priorities in SDIP 2.

5.7 During Epoch 1 (present–2025), the focus for CNSS as an SDIP is on achieving availability targets while maximising the speed with which upgraded and new platforms are brought into service. To achieve this, Defence has established long-term partnerships with industry to develop and build sovereign industrial capability.

5.8 Defence will target the majority of its Epoch 1 surface fleet system priorities through in-train capability acquisition and sustainment projects. For example:

- the manufacture and assembly of complex heating, ventilation and air conditioning (HVAC) systems; maritime plumbing; preservations and coverings; and lighting systems will be fostered through Hunter class frigate construction;
- the integration and adaptation of combat management systems will be matured through Hobart class destroyer capability enhancement activities, in collaboration with the CCA, before being further applied to Hunter class frigate construction in Epoch 2; and
- the innovation, design and integration of uncrewed systems will be exemplified through the spiral improvement of current prototype capabilities.

5.9 In Epoch 2, further collaborative efforts will be required, using the full range of commercial and Government support mechanisms, to provide pathways for Australian industry to grow their capacity and capability to deliver identified priorities. Epoch 2 focuses on increased design and development, integration and adaptation across priority systems, intended to surge interoperability across the spectrum of maritime capability.

5.10 Defence and the Australian Submarine Agency will work collaboratively to refine and assess the detailed industrial priorities for conventionally-armed nuclear-powered submarines, ensuring consistency of approach and methodology. This work will inform the refresh of guidance set out in SDIP 2 and communicate the maritime industrial capability requirements for Epoch 2.

5.11 Where systems require support and active development to meet the requirements of Epoch 1 or 2, Defence will apply the Sea Systems Implementation Program, which will support the identification of a resilient supply chain solution in consultation with Enterprise partners.

**Industrial Cornerstone: Sea Systems Implementation Program**

Through the Sea Systems Implementation Program Defence will aim to manage, monitor and support the achievement of SDIPs as set out in the Defence Industry Development Strategy. Moving forward, Defence will conduct rolling assessments of the sovereign benefit and ease of localisation of systems identified under SDIP 2, placing greater weighting on the risks to capability availability and operational deployment. This process will refine the industrial priorities for Epoch 2 against emerging operational requirements and inform future iterations of both the Defence Industry Development Strategy and this Plan for the Government's consideration. This will ensure that the capability requirements identified by the Government, and delivered by industry, continue to serve the operational needs of the ADF.

## Sustained commitment to Australian industry

5.12 Defence industry is no longer just the builders and maintainers of our vessels– it is the key driver of resiliency in the Australian industrial ecosystem.

5.13 To support the stability of the Defence industry sector, CNSS demand will be managed to ensure continuity of works at principal shipyards, RMCs and Defence bases. Where challenges emerge, Defence will look to industry to co-develop suitable risk mitigation strategies.

5.14 Through the Defence Industry Development Strategy, the Government has committed to further reforming the way Defence does business with industry. The Office of Defence Industry Support (ODIS) plays a key role in forging positive and productive partnerships between Defence and industry. Its mission is to work with industry and Defence to build a globally competitive and sustainable Australian industry as a fundamental input to defence capability.

5.15 ODIS works closely with state and territory agencies, industry associations and Defence business partners, to position the Defence industry to deliver capability that equips and sustains the ADF.

5.16 Maximising Australian industry involvement in naval shipbuilding and sustainment is a key focus for the Government. Decisions on the use of Australian industry in a Defence capability project will be informed by factors such as: capability and capacity to respond to the strategic imperative in the timeframes required by Defence, industrial priorities, security and cyber-worthiness, and value-for-money.

5.17 The Australian Industry Capability (AIC) Program incentivises primes to leverage Australian innovation in their build and sustainment strategies to enhance the Australian defence industry's global competitiveness.

5.18 The AIC Program will continue to play an important role to ensure inclusion of Australian industry capability and remains strongly supported by Enterprise partners.

**The Australian Industry Capability (AIC) Program**

The AIC Program is a critical lever for increasing opportunities for Australian industry participation and long-term capability development. The program sets the requirement for primes to develop bespoke AIC plans to optimise Australian industry participation in capability delivery. This program monitors and encourages the development of a robust and enduring Australian industrial capability.

## Bolstering supply chains through small and medium enterprises

5.19 Tier 2 businesses, as defined in the Defence Industry Development Strategy, deliver major equipment, systems, assemblies and services. While these businesses have a foundational role in fostering resilience in supply chains, most maritime suppliers operate at the Tier 3 level – businesses that provide parts, consumables and services. Through the Defence Industry Development Strategy, the Government will look to grow the number of Australian businesses operating at the Tier 2 level.

5.20 Defence is working across government to align key industry initiatives led by other agencies, which will contribute to defence industry's access to capital, managed through implementation of the Defence Industry Development Strategy, including the Defence Industry Development Grants Program.

5.21 The Government is committed to maximising opportunities for Australian industry participation in defence procurements where it makes strategic sense, and building a competitive Australian industrial base to equip and sustain the ADF.

## Importance of growing design capability

5.22 The Defence Industry Development Strategy acknowledges that maintenance is critical to naval platforms, including the ability to design and develop capability that can address persistent defects.

5.23 The implementation of the 'design and development' priorities from SDIP 2 will enable Australia to sustain maritime capability, innovate to enhance performance and reduce cost.

5.24 Defence's surface ship design and development objectives will expand in Epoch 2 to include hull structures; maritime pumps, valves, tanks and pipes; ship boats; transformers; water plant systems; chargers, inverters and converters; and surveillance systems. The approach, centred on the design and delivery of Army landing craft and other surface vessels, will be detailed in the next iteration of this Plan.

5.25 For conventional submarines, Defence continues to leverage ASC's established and ongoing in-service designer capabilities. This foundation will be further developed through additional emphasis in design areas relevant to, and funded through, the Collins LOTE program. LOTE design work in areas such as propulsion, power generation and power conversion are ongoing and will persist through Epoch 1, ahead of planned implementation commencing in Epoch 2 and extending into Epoch 3.

5.26 The long-term goal of an enduring design capacity onshore focused on systems integration and inserting emerging technologies into naval platforms remains important. However, this endeavour will be balanced against the current and emerging imperatives of the National Defence Strategy, and maritime capability requirements of the ADF.

## Exports and disposals

5.27 The Government's commitment to the CNSS Enterprise will position Australian industry to take advantage of growing export opportunities and support the disposal of Defence assets. The experience gained in CNSS will increase Australia's export potential, generating export opportunities in ships, systems and subsystems, components, design, integration and management services, training and training systems, and asset sustainment and disposal.

5.28 The export and disposal of surplus Defence assets can strengthen Australia's international relationships and promote interoperability between the ADF and recipient nations. By supporting overseas partners' security interests we enhance our engagement and foster bilateral relationships at all levels, while supporting the sovereignty of our partners.

5.29 Careful management of Australia's maritime program schedules will be required to balance the ADF's capability requirements with future export opportunities.

**Global Supply Chain Program**

In July 2024, the Government expanded the number of companies participating in the Global Supply Chain Program from seven to 13. The program now includes: Babcock; BAE Systems; Boeing; Huntington Ingalls Industries Australia; Kongsberg; L3 Harris; Lockheed Martin; Moog; Northrop Grumman; Raytheon Australia; Rheinmetall; SAAB; and Thales. As at December 2024, the program had delivered over 2,580 contracts worth $1.95 billion to 276 Australian suppliers. At its core, the program seeks to support Australian businesses to integrate into global supply chains, diversify their revenue, drive economies of scale and build resilience through exports.

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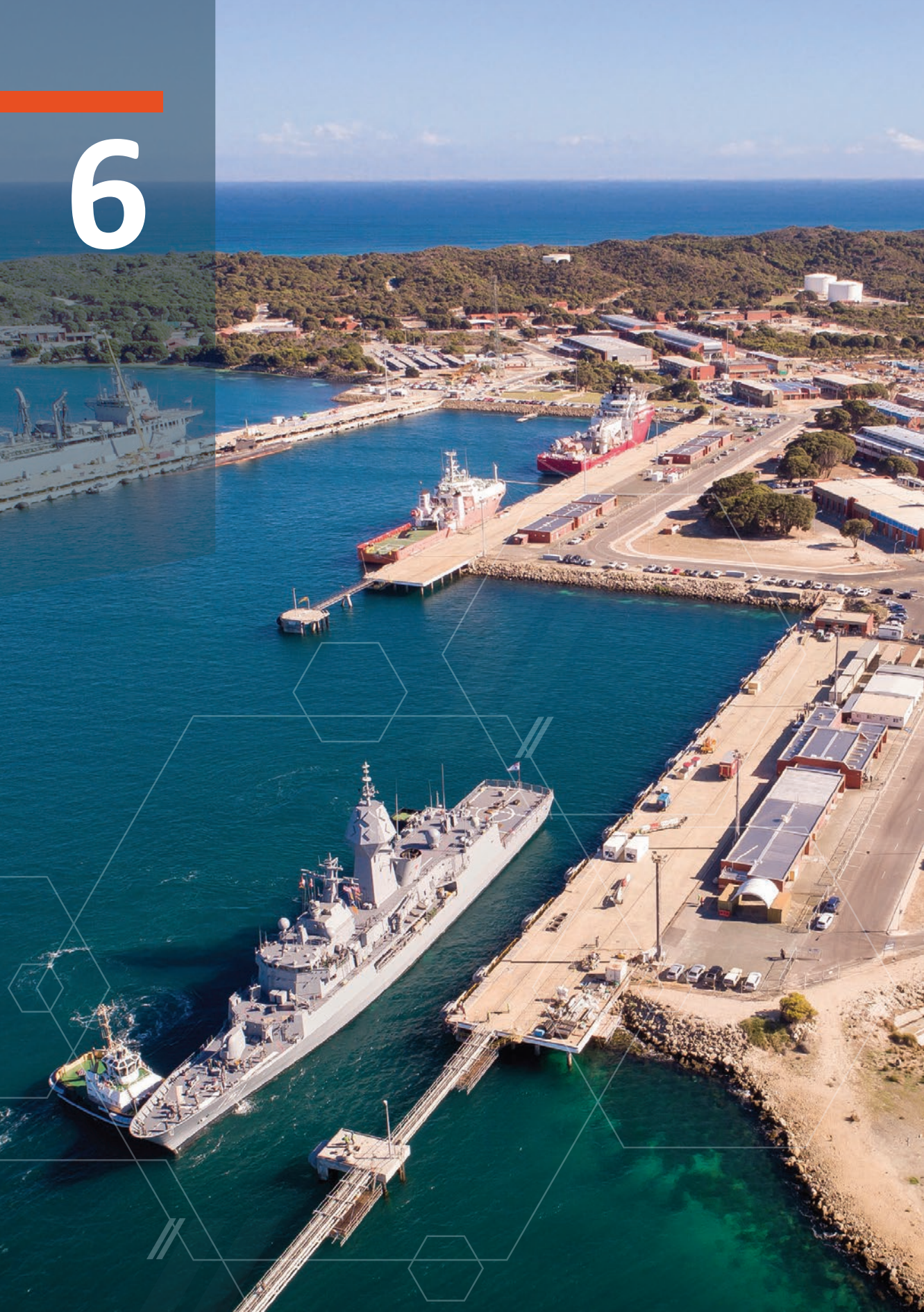

# Chapter 6: Security

6.1 The maritime industrial base faces an evolving and complex security risk environment characterised by shifts in regional power and diplomacy. Security is an essential functional element of all shipbuilding and sustainment activities. The Government will continue to adjust security measures across the maritime industrial base to keep pace with evolving threats.

6.2 As Australia's industry, workforce and infrastructure capabilities develop in scale and complexity, security should remain an integral consideration and evolve at pace. To achieve this, the Government will work collaboratively with Enterprise partners to understand and mitigate security risks.

## Physical security uplift via a precinct-wide approach

6.3 Australia's principal shipyards, RMCs and Defence bases play a crucial role in delivering the capabilities needed to protect Australia's borders and keep our region safe, now and into the future. The physical security of these sites is vital to ensuring that naval capability is not compromised by emerging and evolving threat vectors.

6.4 Defence is committed to the physical security uplift of principal shipyards through a threat, risk, action and assurance model. This continuum allows for the triage of relevant threat information to inform security risk assessments. Defence and Enterprise partners must work collaboratively across all sites to deliver improved security practices and controls.

6.5 Defence will continue to work across government to ensure that all naval shipbuilding and sustainment sites comply with physical security standards.

## Personnel security

6.6 Prompt and effective clearance of the workforce is essential to ensuring that personnel remain engaged with and supportive of the CNSS Enterprise. Defence will continue to work with government stakeholders to improve personnel vetting processes in support of the naval shipbuilding and sustainment workforce.

6.7 Defence will review the Identity Assurance Program (IAP) Pilot implemented at the Osborne Naval Shipyard, which uses powers under the *Security of Critical Infrastructure Act* 2018 to require people with unescorted access to Osborne to undergo an AusCheck background check. This includes identity verification, a criminal history check and a national security assessment, similar to that used to assess people working in secure areas around Australia's airports and seaports.

**Industrial Cornerstone: Maritime Security Assurance Program**

Working with infrastructure and security leads from across government and industry, the Maritime Security Assurance Program will review the IAP Pilot at Osborne South and assess emerging requirements at principal shipyards. The review of the IAP Pilot will identify system frailties and develop responsive actions to elevate principal shipyard security. These pre-emptive actions are particularly important noting the security and stewardship implications of the planned nuclear-powered submarine construction and sustainment activities at Osborne and Henderson. The aim of this program is to reduce the risk of the shipyards being compromised through deliberate or incidental acts, and improve industrial preparedness.

6.8 Personnel security across the maritime industrial base therefore requires flexibility to ensure maximum workforce participation whilst balancing the protective security requirements. Those requiring access to more sensitive parts of the shipyards, or to classified information, will be required to obtain and maintain the appropriate security clearance.

# Supply chain security

6.9 Secure supply chains strengthen Australia's ability to endure, recover from and minimise the impact of supply disruptions, to ensure the continuity of shipbuilding and sustainment activities, and the ongoing military preparedness of the ADF.

6.10 The Government's vision to maximise Australian involvement in domestic and global supply chains requires Australian industry to consider security as a fundamental part of their business. Supply chain security cannot be achieved without establishing the credibility of the supplier, the goods and products supplied, and the means, delivery and purpose of supply.

6.11 The maritime industrial base depends on whole-of-government collaboration to identify and assess vulnerabilities in critical supply chains, including critical minerals, semiconductors, and other essential components supporting naval capability projects.

6.12 The Sea Systems Implementation Program will include an assessment of the supplier base and its underpinning supply chains to identify and better understand potential disruptions to individual systems and its implication for broader industrial resilience.

6.13 The Defence Industry Security Program (DISP) is a key mechanism for ensuring that companies comply with Defence's security requirements. The overlay of these security arrangements extends to industry supply chains. Compliance with the DISP reduces the risk of security impacts or supply chain disruptions to key projects, improving resilience.

6.14 Defence has reformed the DISP to reduce red-tape and other barriers to entry into the Defence industrial sector by mid-tier suppliers. Mid-tier suppliers can now apply for DISP membership without an existing Defence contract to avoid the "too late" problem of cumulative barriers to entry.

6.15 Defence will support industry to better understand Defence's security requirements and improve cyber, physical, and personnel security compliance across the shipbuilding and sustainment industrial base and supply chains.

6.16 Through an enhanced understanding and strong adherence to the DISP, maritime companies will be better prepared to contribute to the improved resilience of the Australian industrial base.

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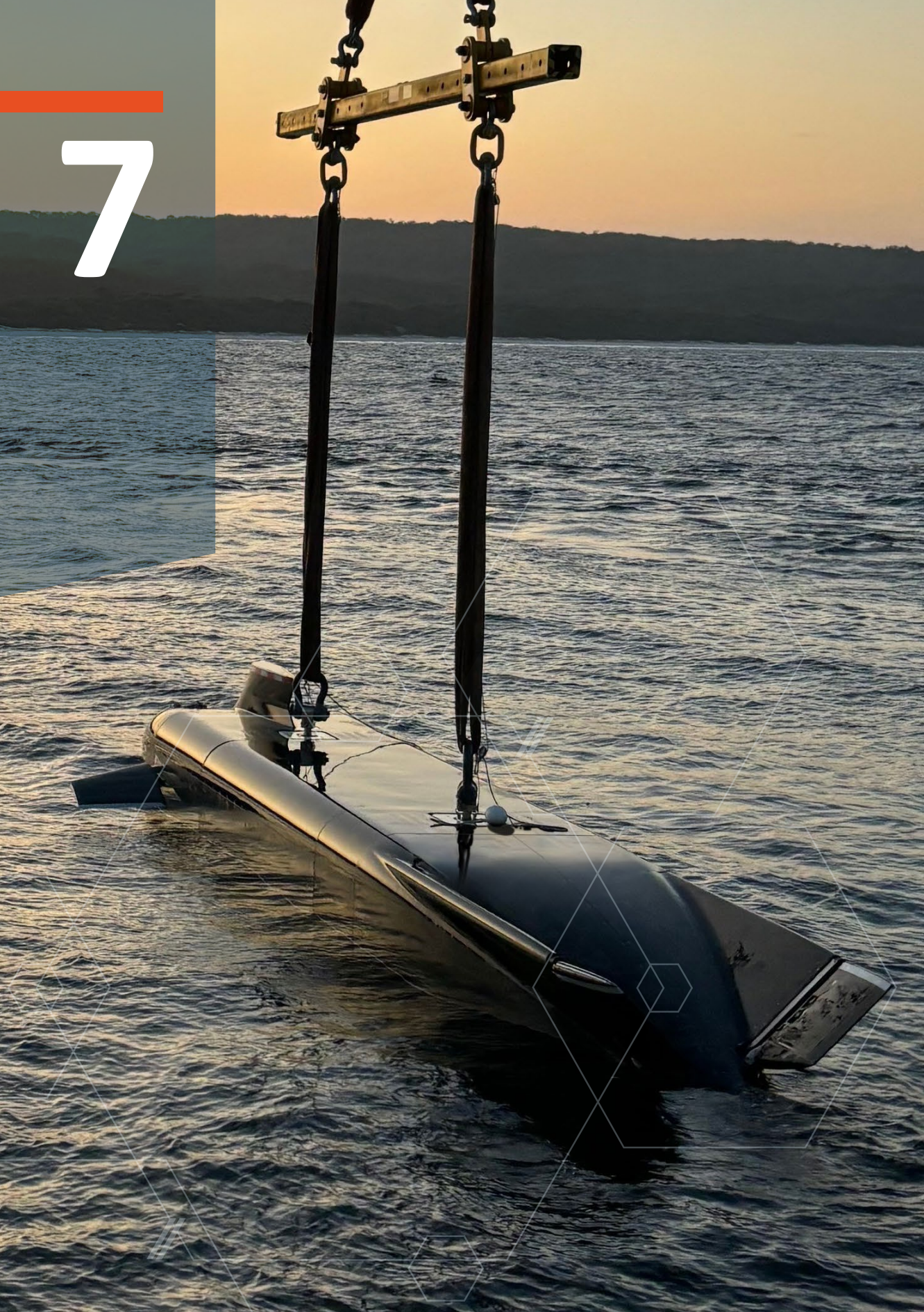


# Chapter 7: Innovation

7.1 The National Defence Strategy directed investment in innovation, science and technology (IS&T) as fundamental to properly equipping and preparing a modern fighting force in a technology-dominated world. Defence is transforming Australia's defence IS&T ecosystem, including through significant investments in ASCA.

**Advanced Strategic Capabilities Accelerator (ASCA)**

In April 2023, the Government established ASCA to deliver advanced technologies urgently needed for Australia's national security. ASCA is taking a new and ambitious approach to transitioning game-changing ideas into defence capability in close partnership with Australian industry and research organisations. The Government has committed $3.8 billion to ASCA over the next decade to pursue technologies that expand our industrial and warfighting capabilities and support *National Defence*.

ASCA is driving this work through three programs: missions, innovation incubation, and emerging and disruptive technologies. ASCA connects and streamlines the defence innovation system to drive capability development and acquisition pathways at speed thereby more effectively harnessing the IS&T ecosystem. ASCA draws upon deep scientific and technical expertise from the Defence Science and Technology Group (DSTG) for advice and assurance and links in with the warfighter to ensure identified capabilities will be fit for purpose.

Through ASCA's Mission 0 – the Ghost Shark program – it will deliver three extra-large autonomous undersea vehicle prototypes designed and built in Australia. To support the development of this innovative capability, Defence and Anduril Australia have co-funded the program with 42 Australian companies in the supply chain.

## Domestic and international innovation engagement

7.2 Defence's approach to IS&T is designed to harness the domestic and international science and technology enterprise to build resilience, longevity and impact.

7.3 *National Defence* is an endeavour that cannot be undertaken solely by Defence, and instead must be pursued as a collaborative and cooperative effort across the entire CNSS Enterprise, which includes the utilisation of dual-use technologies.

7.4 International research collaborations with our partner nations, including those developed under the AUKUS technology sharing partnership with the United Kingdom and the United States will complement sovereign research to address science and technology challenges.

7.5 The 2024 Integrated Investment Program sets out planned investments in the development and acquisition of subsea warfare capabilities and new autonomous and uncrewed maritime vehicles leveraging collaboration under AUKUS Pillar II. This endeavour takes advantage of technological advancements in autonomous, robotic and uncrewed systems.

7.6 Defence will work with Enterprise partners and potential suppliers to develop innovative solutions and provide access to facilities that enable to them to innovate, prototype, test, and qualify their products to meet Navy's seaworthiness and capability requirements.

## International innovation partnerships

7.7 Australia's alliance with the United States is a key strategic defence relationship, supporting greater access to advanced technologies. This includes Australia's use of the United States Navy's Aegis Weapon System (Baseline 9) for the Hunter class frigates, with this system already in service with the Hobart class destroyers.

7.8 Australia's defence relationship with the United Kingdom is based on deep historical and cultural ties. Through the Australia – United Kingdom ministerial consultations, we partner on defence issues, including research and development of high-end military capabilities.

7.9 Underpinning the strategic importance of Australia's relationship with both the United Kingdom and the United States is the AUKUS technology sharing partnership. This partnership will deliver enhanced security collaboration across the three nations.

7.10 The National Defence Strategy has also highlighted the importance of Australia's broader cooperation with international partners throughout the Pacific, South-East and North Asia, and the QUAD (Australia, India, Japan and the United States).

# 8

# Chapter 8: Implementation and Governance

## Evolving the CNSS Enterprise through a programmatic approach

8.1 The delivery and sustainment of maritime capability and the corresponding maritime industrial uplift will be managed by Defence as two distinct and interconnected programs. This approach will balance the speed-to-capability objectives with the long-term stability required to grow Australia's sovereign industrial capabilities.

8.2 This Plan complements the resourced and detailed execution plans captured within individual acquisition projects, sustainment activities and existing industrial uplift initiatives.

8.3 The updated Maritime Shipbuilding and Sustainment Program consists of the individual capability projects that demonstrate the Government's commitment to CNSS in Australia. This program will send a clear demand signal of sustained work to the maritime defence industrial base, as reflected in the Naval Shipbuilding and Sustainment Forecast.

8.4 The Defence Industry Development Strategy also signals a step-change in the development of the maritime industrial base, with the assignment of the Deputy Secretary, Naval Shipbuilding and Sustainment as the Capability Manager for CNSS.

8.5 Defence will establish a holistic CNSS Key Enabler Program, which will drive the uplift of the industrial base through the CNSS Key Enablers. Development of the CNSS Key Enablers is already underway within a number of individual maritime capability projects. This Plan outlines a renewed focus to this work through the creation of associated Industrial Cornerstones prioritised for implementation over the next two years.

8.6 The implementation of the Maritime Shipbuilding and Sustainment Program, and the corresponding industrial base uplift through the CNSS Key Enabler Program, are co-dependent inputs to *National Defence*.


**Figure 12:** Maritime Shipbuilding and Sustainment and CNSS Key Enabler programs

## Responsibilities of CNSS Enterprise partners

8.7 All Enterprise partners (Figure 13) have an active role in the development of shared risk mitigation and improvement opportunities. This includes targeted investment from Enterprise partners in the industrial base to achieve the required uplift. The Government has a fundamental role of providing investment confidence, through sending a clear demand signal of maritime work.

8.8 As part of the success of the CNSS Enterprise and its intended outcomes, it is essential that industry continue to invest in its own technical capabilities, personnel, facilities and equipment, drive innovation in the sector, and comply with security requirements.

8.9 State and territory governments have an important role alongside federal government agencies and industry partners to work collaboratively to prioritise and fund infrastructure at key locations. This collaboration with industry and trade unions is also key to ensuring the retention of skilled workers.

8.10 It is also critical that academia, including universities and TAFEs, invest in developing new skilling and accreditation options to increase the supply of skilled workers to the Australian labour market.

8.11 Trade unions have a critical role to play through engagement with the Government and industry on behalf of their members to ensure the CNSS Enterprise has the best chance at retaining skills and experience within the sector.

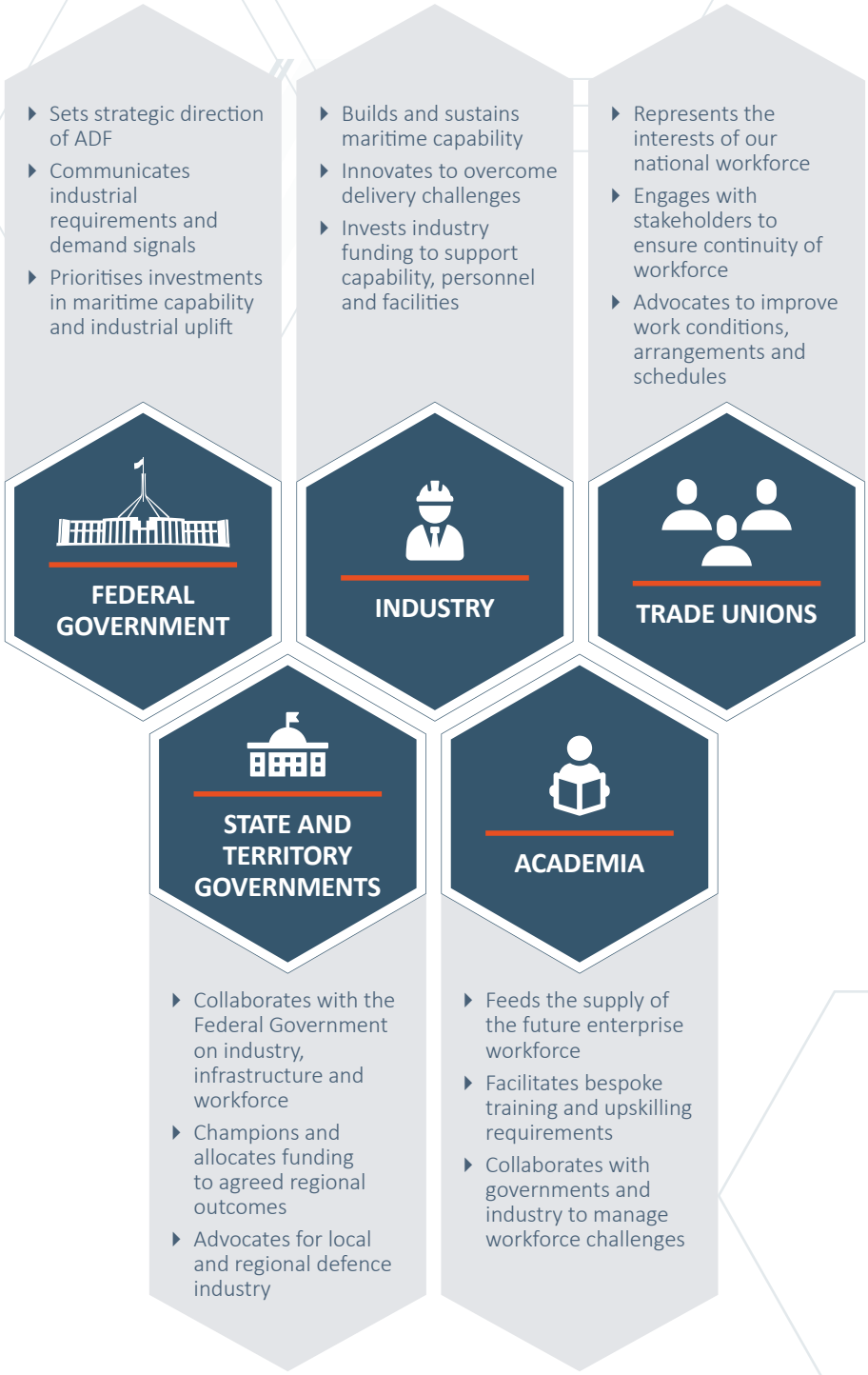



**Figure 13:** CNSS Enterprise partner responsibilities

## CNSS Enterprise governance framework

8.12 The successful implementation of the CNSS Key Enabler Program is dependent on a whole-of-nation approach, delivered through the CNSS Enterprise. Underpinning performance will be a governance framework of engagement with Enterprise partners that drives an improved tempo of risk awareness and issue management.

8.13 The CNSS Enterprise governance framework will improve communication and collaboration across all levels of government, industry, academia and trade unions, on the management and delivery of the CNSS Key Enabler Program.

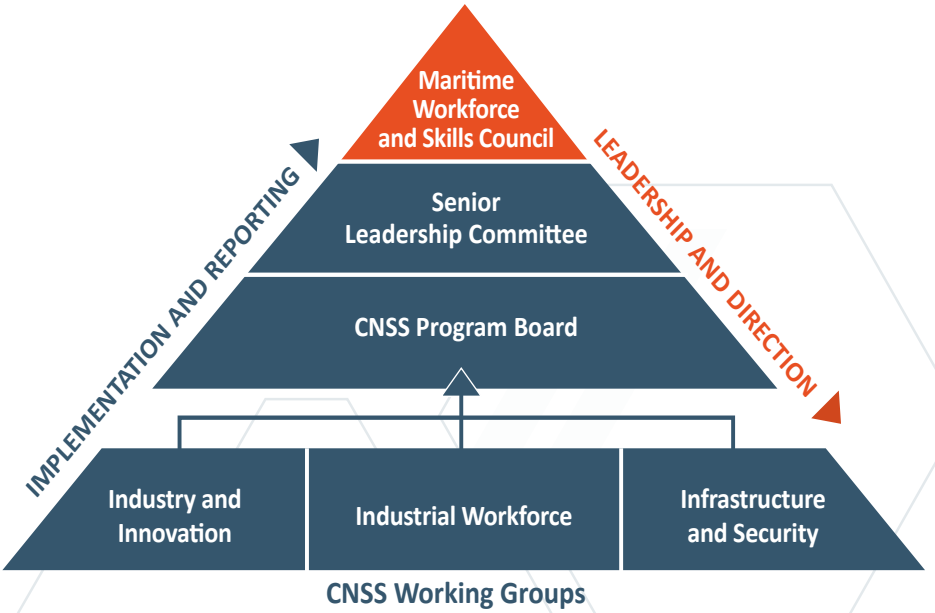



**Figure 14:** CNSS Enterprise governance framework

8.14 This high-level framework (see Figure 14) will enable Defence to lead the development of the CNSS Key Enablers and escalate emerging pressures and risks related to the development of the CNSS Key Enablers and the implementation of the Industrial Cornerstones.

8.15 Through a series of working groups, a CNSS Program Board and Senior Leadership Committee, Defence and Enterprise partners will develop a collaborative culture of shared knowledge and experience to manage associated risks and issues to deliver optimised outcomes.

8.16 The Maritime Workforce and Skills Council (see page 29) will provide ministerial oversight of the CNSS Enterprise's largest risk – the supply of a skilled and experienced workforce. The outcomes of the Council will be disseminated back through the tiers of CNSS Enterprise to provide clear guidance and agreed direction.

## Measuring success

8.17 The accurate monitoring and reporting of progress in respect to developing the CNSS Key Enablers will be critical in evaluation of performance. This will allow for review of the effectiveness of this Plan, and for appropriate corrective actions and risk mitigations to be considered and established through the CNSS Enterprise governance framework.

8.18 Defence will evolve its existing performance frameworks in collaboration with other CNSS Enterprise partners, developing and agreeing this through the CNSS Enterprise governance framework. This will ensure more precise reporting on the metrics that reflect improved resilience and uplift of the Australian industrial base.

8.19 Defence shipbuilding and sustainment projects will maintain the same high standards for transparent reporting on cost, schedule, scope and risk vectors. These key metrics are reported to Cabinet at regular intervals and as requested.

## Assurance and audit

8.20 Defence will undertake regular reporting to the Government on the progress of the Maritime Shipbuilding and Sustainment and CNSS Key Enabler programs, as well as the implementation of the Industrial Cornerstones.

8.21 The Naval Shipbuilding Expert Advisory Panel comprises eminent experts from Australia and overseas with significant experience in complex national programs. The panel reports directly to the Government.

8.22 The shipbuilding and sustainment projects are subject to performance audits by the Australian National Audit Office (ANAO). These performance audits are conducted in addition to the major projects selected for review in the annual Major Projects Report released by the ANAO. The CNSS Enterprise is also subject to regular analysis and review by Parliament, including through committee inquiries and Defence's regular internal independent assurance reviews.

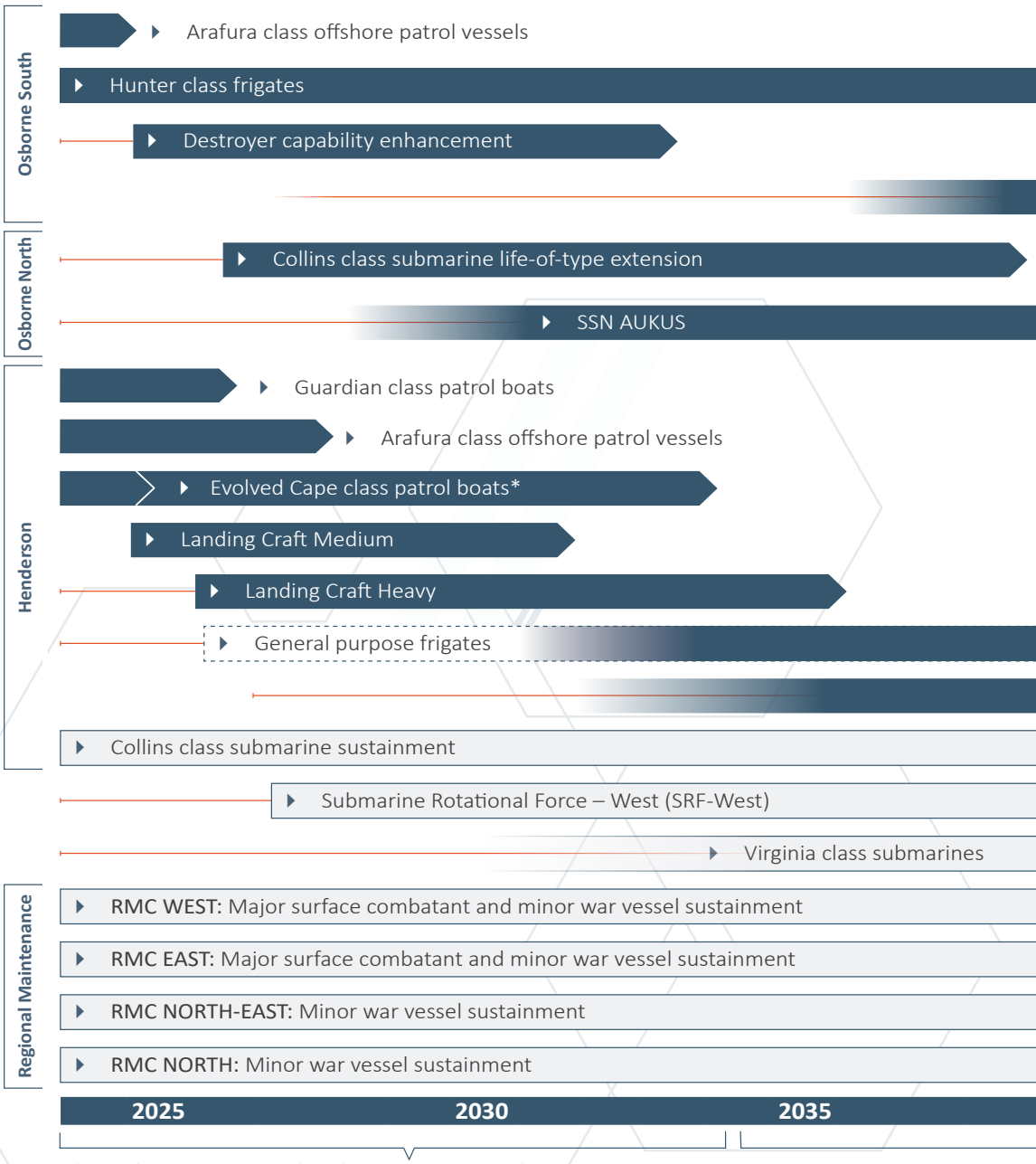
## Biennial strategy cycle

8.23 The move to a biennial National Defence Strategy release cycle will support more active engagement on the strategic imperatives and direction of Australia's *National Defence* approach and requirements. This cycle will allow policy strategy, planning and reform efforts to keep pace with the changing strategic environment. Under this cycle, the next edition of the Naval Shipbuilding and Sustainment Plan is scheduled for release in 2026.

8.24 The revision and update of the next version of the Plan will include rolling assessments of:

- progress towards achieving strategic objectives;
- CNSS Enterprise's effectiveness in delivering industrial base uplift;
- impact of the Industrial Cornerstones on the development of the CNSS Key Enablers;
- functionality of the CNSS Enterprise governance framework; and
- emerging risks affecting the delivery and sustainment of maritime capability.

# ANNEX A:
## Naval Shipbuilding and Sustainment Forecast




Planned investments within the 2024 Integrated Investment Program


Future planned investments for Government decision (indicative dates*)

# ANNEX B:
# Summary of Industrial Cornerstones

## CNSS Enterprise and Maritime Workforce and Skills Council

The CNSS Enterprise governance framework provides a structured approach to collaboration across the broad spectrum of Enterprise partners. As part of a broader CNSS Enterprise governance framework, the Government has established the Maritime Workforce and Skills Council to coordinate the active management of workforce demand pressures.

## Workforce Planning and Intelligence Service

Defence will develop options for a national cross-domain aggregated workforce view through the Workforce Planning and Intelligence Service (WPIS). The proposed WPIS expansion would provide advanced predictive analytics and tailored scenario planning services to inform future capability decisions on CNSS and the active management of Australia's industrial workforce capability.

## Shipbuilding Pathways Program

Defence will develop the Shipbuilding Pathways Program to understand the barriers to recruitment and retention of people in critical maritime occupations. This will inform options to improve the supply of skilled and experienced personnel to the industrial base, and ensure the composition of the maritime workforce meets the needs of the future.

## Henderson consolidation

In consultation with the Western Australian Government, Henderson consolidation will initially focus on the delivery of enabling works to support the optimal infrastructure approach at the Henderson Shipyard, including land allocation, planning, consultations, preliminary design, and feasibility studies for a Commonwealth-owned Defence precinct.

## National Maritime Infrastructure Master Plan

The National Maritime Infrastructure Master Plan sets out to identify the sovereign Australian maritime infrastructure needed to build and sustain the current and future fleet of surface and sub-surface vessels. This work will set the foundation for optimisation of a national infrastructure plan in collaboration with government agencies and Enterprise partners.

## Sea Systems Implementation Program

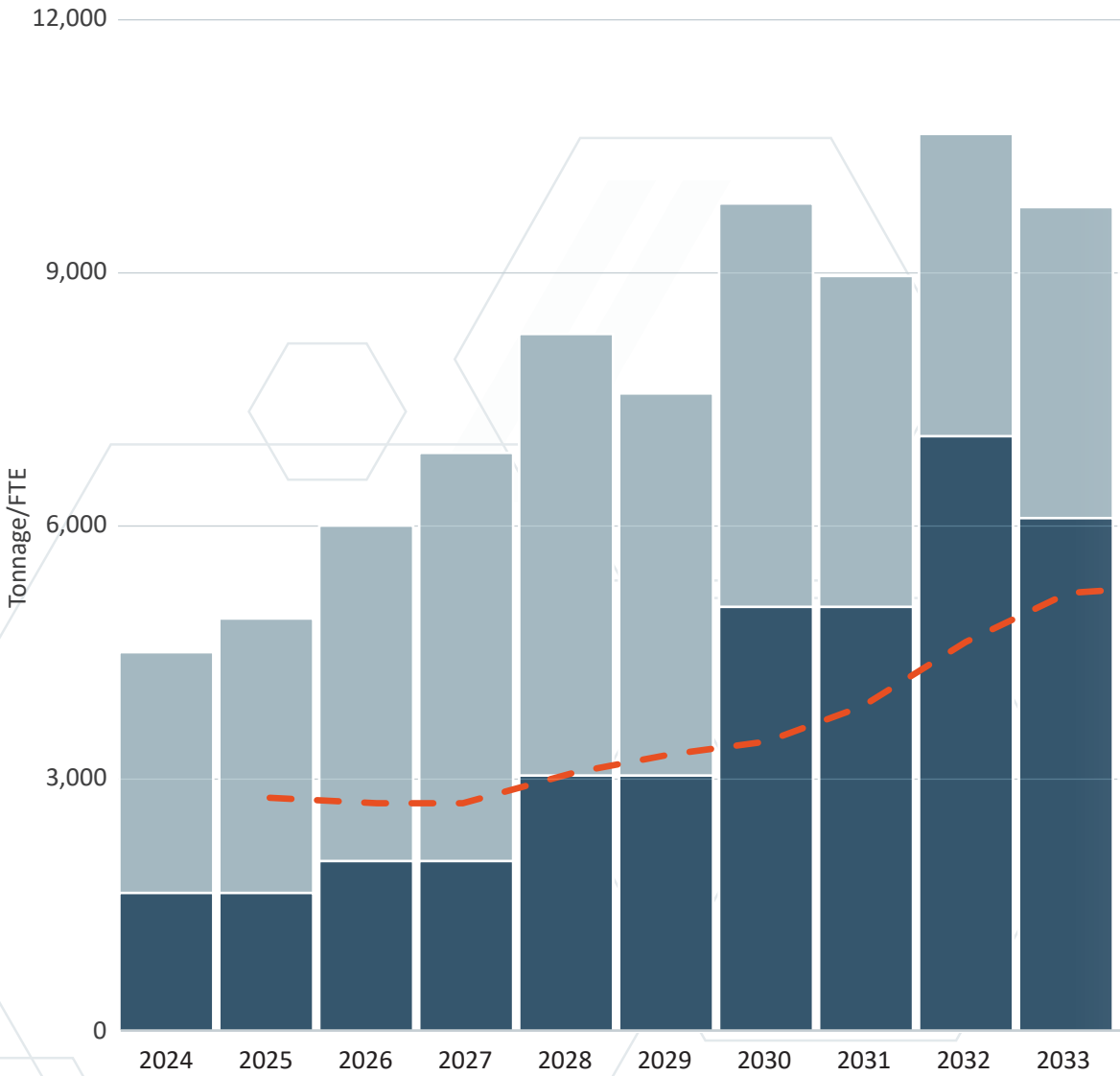
Through the Sea Systems Implementation Program Defence will aim to manage, monitor and support the achievement of sovereign industrial priorities as set out in the Defence Industry Development Strategy. This will ensure that the capability requirements identified by the Government, and delivered by industry, continue to serve the operational needs of the ADF.

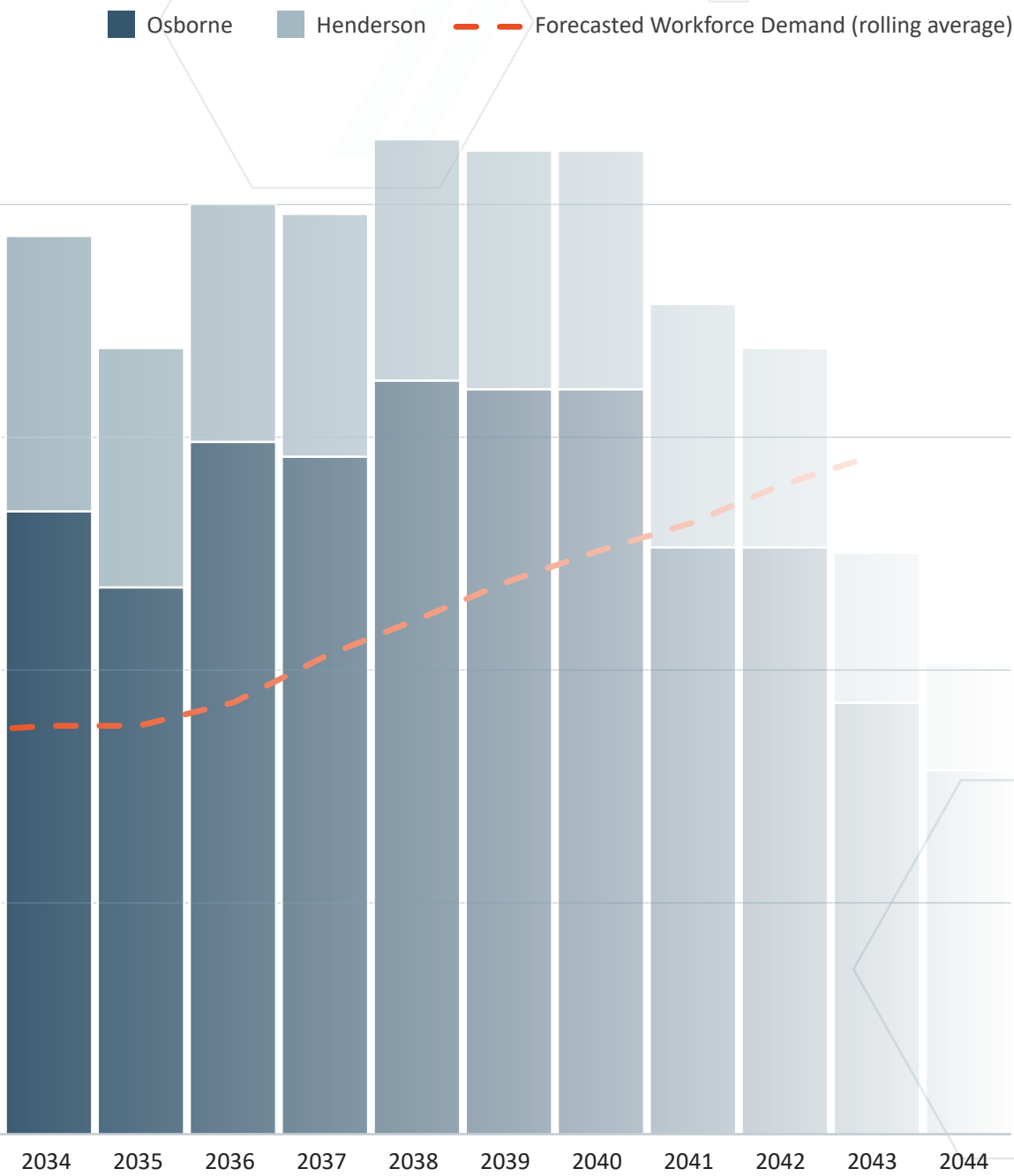
## Maritime Security Assurance Program

Working with infrastructure and security leads from across Government and industry, the Maritime Security Assurance Program will include the review of the Identity Assurance Program (IAP) Pilot at Osborne South and assessment of emerging requirements at principal shipyards.

# ANNEX C:
## Naval Shipbuilding Throughput

This diagram provides a 20-year parametric projection of average tonnage per year against vessels under construction. This is overlayed with the projected growth of maritime industrial workforce demand (FTE).




Osborne
Henderson
Forecasted Workforce Demand (rolling average)
2034
2035
2036
2037
2038
2039
2040
2041
2042
2043
2044

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Australian Government

Defence